





## Kinnock: search for lost votes

With Mr Neil Kinnock as leader and Mr Roy Hattersley as his deputy, the Labour Party has two men at the top who have taken a close interest in education. As shadow education secretary, Mr Kinnock threw himself into the lengthy policy discussions which preceded the last election; party committees beavered away with commendable zeal sketching the outline of a grand, if at times obscure, reform of secondary and continuing education. There is no doubt that Mr Kinnock provided much of the drive for this. What he did not (or could not) do was to keep Labour's collective feet on the ground and instill the element of realism which might, somehow, have suggested that it was something more than a paper exercise.

Mr Hattersley, too, is an ex-front bench education spokesman. He had a short spell facing Mrs Thatcher soon after she became Secretary of State. One of his main achievements then was to make an uncompromising attack on independent education (in an address to the prep schools) which may well have contributed to the brevity of his period of office as shadow education minister. His paper to the British Association at Sussex University in August last, spelled out in more measured (but no less forceful) terms his commitment to equality and, as part of this, his total opposition to private education.

Mr Hattersley's hostility to elitism in education is certainly no less than Mr Kinnock's - it may even be more, because he was scoured by spending a few years at a modest private school in the days of his asthmatic youth, while Mr Kinnock undoubtedly bears the positive stigma of a Welsh grammar school.

Knowing political commentators see it as Mr Kinnock's task now to bring Labour back from its *gauchiste* sectarianism and recapture those working class and middle class voters who must have gone over to the Alliance or to the Conservatives at the last election. Without a hint of cynicism, they assume that the man to dish the left and woo the centre is Mr Michael Foot's heir, the brilliant and witty demagogue who made his way up the left-wing Tribune ladder to near the top of his party before beginning his sideways shuffle to the leadership.

It would be difficult to overestimate the magnitude of his task, or the finesse which he is being expected to show. Political commentators (probably rightly) are inclined to regard an U-turn, however spectacular, as beyond the scope of a politician. To some extent, Mr Kinnock's credibility will depend on matters beyond his control such as the errors or misfortunes which may, at any time, plague Mrs Thatcher and her colleagues. But there still remain

tricky matters of policy, and in the context of education, the reconstruction and reformulation of Labour's plans in a shape and form which will have a direct appeal to those moderate and conservative groups who quit the party in 1983. The independent school issue - though by no means the central educational issue - caused the SDP a good deal of heart-searching before a sensible determination not to put potential voters off carried the day. Labour may have difficulty in emulating the pragmatism of the SDP but still need to find a way of retreating from their more exposed positions.

The suppleness of Messrs Kinnock and Hattersley is going to be tested to the full, but so too is their style and judgment. They have somehow to wear the party away from the surfeit of policy which the party enthusiasts demand as a means of pinning politicians like Mr Kinnock down. Mr Kinnock, for all his inexperience, knows that government isn't like that and that the electorate is less impressed by details of paper plans than by a limited, realistic programme which gives a few clear signposts for the future direction of affairs. In this education could still be important because there must even now be many people in Britain whose idealism could be rekindled by a party which really believed in the future enough to give education a high priority.

## COMMENT

### HMI's on thin ice

The HMI's report on the sociology and social studies degree courses at the Polytechnic of North London (page 5) raises more questions than it answers. It prompts basic questions about the role of the Inspectorate in higher education - confined as it has hitherto been to the public sector, but now in pursuance of DfES policies on teacher training, increasingly impinging on the universities as well. HMIs will have a much rougher ride in polytechnics than in schools: as in this latest case, their judgments will be strongly contested and the obvious limitations of their own experience exposed.

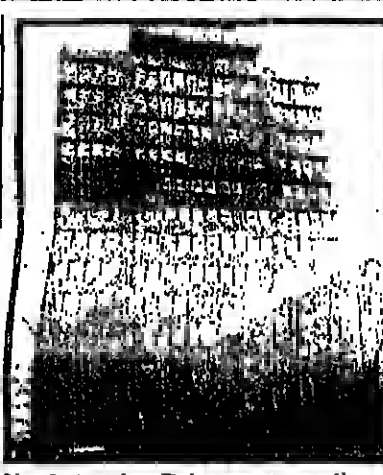
This report also points to the conflict which will arise between the CNA - the body responsible for the academic validation of most public sector courses for degree purposes - and the Inspectorate, independent in judgment but, nevertheless, a body operating under the direction and at the disposal of the Secretary of State.

This, too, has to be faced in plans for tightening up teacher training: periodical collisions on questions of accreditation and validation seem inevitable.

In the case of North London Poly, the Inspectors were sent in because of allegations of Marxist bias. The same allegations had prompted a CNA review which rejected the charges and endorsed the validation of the courses for degree awards.

If (hats are as bad as the HMIs say, how did the CNA come to renew the seal of approval? The HMIs do not say anything, explicitly, about Marxist bias. Most of their critical judgments are about the basic quality of the education - the process itself, and whether the experience which students were being given constituted something of sufficient rigour and depth to constitute "higher education".

HMIs are not given to hyperbole but by their standards the report was outspoken in its condemnation of weaknesses in the teaching, the limited course content and the casualness with which the students and staff set about their business. The inference can only be that they believed that the narrowness of the content and the lack of rigour, combined with the way in which individual members of staff



North London Poly: more questions

ried a real risk of political distortion.

The CNA evidently took a much more favourable view of the two departments. Did the CNA assessors study the process as well as the content and the assessment technique? Or did they accept, as normal, the allegedly sloppy practice which shocked the HMIs? Last week, the Inspectorate published a wider report on teaching in the polytechnics which was highly critical and made some of the same general points which have now been made particular in the case of North London.

The other major question raised by the report concerns the whole matter of "open access" - the admission of mature students without ordinary qualifications. The object of broadening entry and recognizing other kinds of experience is important. But "open access" is not meant to be an excuse for soft options or spoon-feeding; not, that is, unless colleges want to short-change the intended beneficiaries. Nor should it be a cover for *aghiop*... The Open University has been wrestling with these matters since its inception - not without accusations of political bias and of using techniques of course construction which come closer to spoon-feeding than would be acceptable in many conventional universities.

It is most important that access to higher education should be widened, and extended to more men and women who can bring to their studies experience and insights from many walks of life and fields of work. Increasingly this may depend on flexible admission arrangements, and as the HMIs' report last week acknowledged, on getting away from the slavish dependence on

makes it especially necessary to use this row over North London Polytechnic - and any possible inquiry which Sir Keith Joseph may now set up - constructively, rather than allow it to do a blow to all unconventional admission schemes.

Sir Keith's inquiry, if it materializes, may well be aimed at the CNA which seems to be moving into the target zone. It would be no surprise to find its independence and standing increasingly unpopular among the new imperialists of Elizabeth House.

### Primary matters

The Schools Council's working paper on *Primary Practice* (page 8) is not quite its swan song. But it is a good testimonial for the Council's late practical phase. It is a concise and usable handbook for primary schools, summarizing recent thought and practice in various aspects of primary curriculum and organization.

It is quickly scathing about the evidence that many primaries fail to think through their curriculum and assessment methods outside the basics of language and mathematics. It raises important questions about how far schools actually encourage the social and personal development of children in practice, as well as in theory. It provides clear checklists and pointers to help primary staffs tackle curriculum planning in reasonably precise and manageable ways.

Putting this booklet into every primary staffroom is a useful contribution to the further improvement of primary practice. From the point of view of many class teachers, recent demands placed on primary schools look pretty daunting - not least the demand that they should lay much more solid foundations for subjects other than the basics.

Outside mathematics, where plenty of guidance is available and progress is relatively easy to assess, it is not easy to move from a style where class teachers largely determine the day to day curriculum of their pupils, to one where the curriculum is planned in all areas, and progress is systematically checked. It is particularly difficult to see how to do this without losing the considerable benefits of the class teachers' independence. The Schools Council working paper seems a good

way of getting started.

On a narrower front, the Inner London Education Authority has now formally launched its working party on successful primary practice in inner city schools (also page 8). The group will have useful evidence from an ILEA longitudinal study to build on, and, with former Chief HMI Norman Thomas in the chair and strong teacher representation, it is unlikely to continue superficial signs of concern for city children's problems with genuine achievement. Primary schools can certainly do a lot through better planning and self-help. But it is still necessary to put resources into identifying and disseminating good practice, and providing outside help for schools that want to review their work.

### Misguided opposition

The ILEA's long-awaited guidelines to promote multithetic policy and combat racism deserve to be welcomed. Not attacked.

It is true that it is going to involve extra work for schools and their teachers, and sets probably over-ambitious targets for exemptions, promotions and curriculum change. But the general thrust of the programme, which is remarkably similar in that already in operation in Bradford (page 12) is right.

When Conservative-controlled Bradford launched its scheme, it was greeted with similar opposition. But at least Bradford did not have the Centre for Policy Studies using the issue as a means of maintaining its vendetta against Ken Livingstone.

It is worth recalling (perhaps for the benefit of Dr David Hart) that, when *The TES* polled teacher opinion in May, a clear majority were in favour of a declared policy to combat racism in the classroom.

### no comment

"When my daughter entered medical school, she found her most useful asset was that she was accustomed to using a Black and Decker".  
Ms Jane Finlay, deputy chairman of the Equal Opportunities Commission, speaking at the annual conference of the Institute of Careers Officers this week.

## Second opinion

### It depends what you mean by training

The dictionary definition of "to prepare for performance by instruction". Education on the one hand, less something to do with "ing" the whole personality, and less suggestion of larger dimensions.

Traditionally, education has place in schools and universities, in FE colleges and in the place, and perhaps a combination of education and training in polytechnics and colleges of education.

The Royal Society of Arts' *Education for Citizenship* project says that education produces people who understand but cannot act, the training is concerned with doing and organizing. (But as we understand? Could this be dangerous? RSA literature brings the two together for a well-balanced education embracing analysis and the application of knowledge on the one hand, the other "the exercise of skills, the competence to act, and complete tasks and the scope with everyday life... co-operation with others". No more, mas here!

The White Paper, *Teaching*, is clear in Section 37 that "subject teaching... requires, whose study... was at the appropriate to higher education. Yet in Section 71, the recognition of the need for more pre-vocational in schools leads to an offer of their qualified teacher status to those with qualifications not normally acceptable in their own right". The suggestion that the two might be unified by teacher training institutions producing "generalist" teachers, or vocational institutions offering "teacher training" alone, offering "teacher training" alone, in MSC literature over the years "education", "training", and "teaching" are distinct.

Education equates education with improvement of the soul; training with doing a job to earn a living and the country's competitiveness. But does such a trivial approach have an educative value for a degraded people old of gaining self-confidence and success in a vocational training scheme as much as it belies the vocational value of academic A levels, B levels by a university degree, followed by a job in a merchant bank? How to courses?

We really are in a muddle. *Colleges of Education* are suited by teachers, and sets probably over-ambitious targets for exemptions, promotions and curriculum change. But the general thrust of the programme, which is remarkably similar in that already in operation in Bradford (page 12) is right.

The FEU's *Supporting YTS* scheme them up by referring to policy education, whereas *A New Training Initiative* separates them in the phrase "an educated, trained and flexible labour force". Fewer than half further education lecturers are trained. And so on.

If teachers (or even trainers) are more clear about what they mean than the rest of the nation, perhaps they should invent a working definition of it, putting it in a dictionary, and putting it in education with them.

Or shall we go for the jargon, both words, and talk about "learning experiences"? After all, when we are being taught, and we have a point unless it is learned. The trouble is that we have to define "teaching", "learning", "training", etc, and people, like dictionaries, are notorious for their definitions.

We have heard of head of Ealing Comprehensive School, Barking.

## NEWS

### Schools face screen test to enter the micro age

by Nick Wood

The microelectronics revolution could sound the death knell for schools unless they keep abreast of the new technologies, according to a major new report from a team of Government advisers.

The report from the influential Information Technology Advisory Panel, which last year made controversial recommendations on cable television, says that IT could "deschool" society.

"Some commentators, having noted that technology has sometimes intruded a service into a consumer good... have speculated whether microelectronics could do the same for education."

The parallels are, of course, not exact, but video discs, home computers and so on will provide parents with opportunities for the purchase of effective teaching aids in a way not previously open to them.

"We make no firm predictions, but note that educational institutions generally will need to make effective use of new technologies in order to maintain their position against competing sources of tuition and information."

The report, commissioned by the Prime Minister and published by the Cabinet Office, seeks - to bend the metaphor - to dot the I of IT. Too much attention has been paid to the tools of the new technology and not enough to the message it is carrying. Scattered unorganized throughout the economy is the "tradeable information sector", embracing publishing, broadcasting, education and training, financial services, entertainment and consultancy. Together such enterprises and organizations already employ a million people and had contributed a positive trade balance of £2,500 million in 1980, but, as yet, their full commercial potential remains unrealized.

The problem is that their chief product, saleable information, is not yet seen as a valuable commodity to be packaged and sold in domestic and world markets, the report says. Information technology, by eroding the barriers that have separated such seemingly diverse activities, can clear the way to a business revolution in which knowledge is bought and sold in much the same way as other, more tangible, goods.

### All-in schools are out of date - Minister

by Biddy Passmore



Bob Dunn: return of freedom

Comprehensive schools might have faded the 1960s and 1970s but selection is more appropriate for the 1980s and 1990s, Mr Bob Dunn, junior minister for schools, claims in a speech prepared for last Saturday's meeting of the Conservative National Advisory Committee for Education in London.

When Mr Dunn discovered that the meeting, which was held in Conservative Central Office, was to be an informal session he abandoned his speech and spoke off the cuff for a few minutes before he and his fellow junior minister, Mr Peter Brooke, answered questions.

The speech, set out by Central Office, is the clearest statement yet that Mr Dunn believes education authorities should grasp the opportunity presented by falling rolls in meet parental demand by reintroducing selection (the speech does not refer to grammar schools).

The move to comprehensives for all had been a result of the dictatorship of the Left, he said. Too many Conservative councillors and authorities had left it with it. Now, however, freedom had returned with the 1979 Education Act.

"Every local authority needs to stop and to think, to take stock how well

they are fulfilling their duty to cater for the abilities and aptitudes of the children in their care", he continued.

Comprehensives were "relatively easy to introduce at a time of rising child population but much harder to sustain" at a time of falling rolls. Less were having to close or amalgamate comprehensives to keep the remaining ones sufficiently big to be both workable and economic.

"But is that what the parents want?" Mr Dunn asked. "Could it be that whatever may or may not have been right in the circumstances of the 1960s and 1970s is now inappropriate for the 1980s and 1990s?"

"Could it be that we should now move forward to a more careful and sophisticated form of provision entering more appropriately for all abilities and aptitudes by teaching those children in groups and in schools with other children of similar ability and aptitude? Parents' choice is pretty meaningless if there is little to choose from."

### Sexism found in CDT timetable

by Hilary Wile

The small share of teaching time that many schools allocate to Craft, Design and Technology leads to widespread, if unintentional, discrimination against girls.

According to findings from the Girls' Technology Education Project (GATEP), due to be released next week, many schools organize their curriculum so that fewer and fewer girls take CDT in their second and third years of secondary schooling.

"In all schools without exception where this happens it is predominantly the girls who do not," concludes its report on access to CDT in the early

years of coeducational secondary schooling. The project surveyed provision in 68 schools in two local education authorities in order to discover what effect timetabling patterns have on take-up of CDT.

A major finding was the extent to which curricular differences for boys and girls continue to exist in secondary schools.

Mr Martin Grant, schoolteacher fellow with the Chelsea College-based project, said this week that the survey showed "so many schools haven't yet come to terms with the Sex and Discrimination Act".

Abstracts of scientific and legal reports, for instance, can be stored on computers, then called up instantaneously on the terminals of users who can be thousands of miles away from the host machine. Far more effort should go into the creation of such commercially viable database, the report says.

Schools have a key role to play in bringing home to people the economic importance of knowledge, it adds. They should "inculcate the concept that information has value and that this value is the foundation of much economic activity".

The report also acknowledges that the use of computers in schools is currently hampered by a lack of suitable software, it says. The supply of good programs must be a "priority area" and it urges firms to exploit the high standing of the British educational system by producing such material for sale abroad.

*Making a Business of Information*, Information Technology Advisory Panel, HMSO £4.21

### I levels: go-ahead expected this year

by Biddy Passmore

An announcement that the Government plans to go ahead with the introduction of intermediate (I) levels - exams worth half an A level - is expected to be made by Sir Keith Joseph, the Education Secretary, before Christmas.

A paper setting out the plan is nearing completion at the DES. If, as expected, Sir Keith announces his approval, further consultations might be needed before work on the new syllabuses was set in hand, probably by the Secondary Examinations Council.

The Education Secretary gave a broad hint that he planned to go ahead with I levels at last week's annual meeting of the Head Masters' Conference in Cambridge, when he spoke of publishing a discussion paper later this year on "broadening the scope of A level examinations". But he would not say if the proposals would involve I levels because he had not yet seen the papers.

It was especially appropriate that he chose the HMC conference to make the announcement because the idea of the exam originated with public school

headmasters and they have consistently championed its introduction.

The proposal is not thought to have changed since Mr Mark Carlisle, then Education Secretary, published his views on the I level in the consultative paper "Examinations 16-18" in October 1980. Only shortage of staff and work on the 16-plus and 17-plus have held up work within the DES.

The new exam would be taken alongside A levels to broaden the curriculum for academic sixth-formers, which has been consistently criticized as too narrow, especially by comparison with practices in the Continent. Students might take one, two or even three I levels at the same time as their two or three A levels, thus encouraging science students to keep up with languages and vice versa.

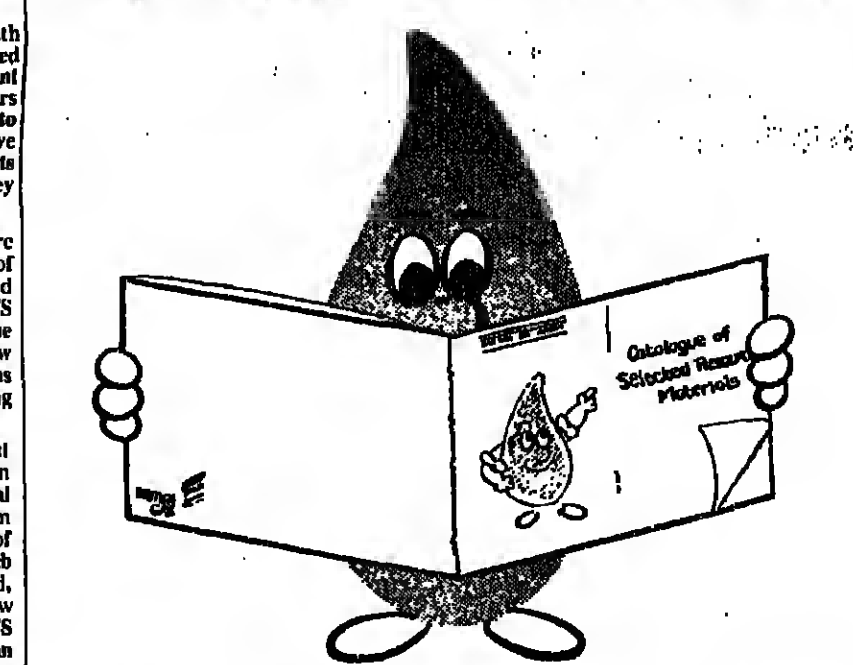
Mr Carlisle rejected a suggestion from the Schools Council that the exam should be taken by both A level students and those of lower ability. It would be difficult to design a single exam for both, he said, and less academic sixth-formers were being catered for by other developments.

### Second cleaner warned

Dudley Council, which put its entire school cleaning service into the hands of private contractors, has told them to improve their standards by the end of the month or face the loss of the contract.

Conservative-controlled Dudley delivered the ultimatum as Merion Council announced it had sacked its private contractors, Academy Cleaning Services, following complaints about their work. Merion had earlier given Academy a fortnight to improve its standards.

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## PLATFORM

Felicity Taylor asserts that the arguments against having teachers on a school's governing body do not stand up to close examination

## Why teachers are justifying their seat on the board

Governing bodies are changing, and it can be a painful and difficult process. Becoming more effective means becoming more of a nuisance to the administration, less willing to accept directives from the politicians, more ready to raise a riot over cuts in resources.

Not only does it take an active governing body time to find its feet vis-a-vis the local education authority, it must also evolve a cohesive and practical way of working together for the school. Old-style governors, used to rubber-stamping the head's decisions and hurrying off to the next meeting, have to come to terms with the keenness and assiduity of new governors (often the elected parents and teachers) who take their duties very seriously.

Having teacher governors particularly worries some of the old guard. It is suggested that teachers will bow down to the head; they will undermine the head's authority; they will cause dissension in the staffroom by betraying confidences; they cannot be expected to comment on the work of colleagues; it is bad for discipline to have assistant teachers involved in the appointment of senior staff.

I am glad to say that none of this was borne out by my research into parent and teacher governors. In fact, schools who have them wonder how they ever managed without them.

All governors are equal, and none should be more, or less, equal than others. This has to be understood if a governing body is to function properly. And, however, governors are appointed, they must learn to put the interests of the school first, above any sectional interest they might be deemed to represent.

Teacher governors soon realize that they cannot be staffroom delegates; it is not only unconstitutional, it is impossible. A staffroom is a collection of individuals who are unlikely to follow any party line, and if teacher governors

try to represent the whole spectrum of staff views, this inhibits them from using their own judgment and performing their duties as governors effectively.

Teacher governors are there because their professional experience, their knowledge of the school and their personal commitment to it are valuable to the governing body.

The teachers in my survey suggested that one of their most important tasks was to "educate" the lay governors about current educational methods and the realities of present-day school life. They were frequently shocked by the ignorance and irrelevance displayed by some of the other governors, and had plenty of horror stories about this, such as the teacher who insisted that he had been asked at his interview which of the city's two football teams he supported. Like the parents in the survey, teachers distrust "political" governors who, they said, seldom visited the school.

If it is taken for granted that the school's interests come first, conflicts of interest do not present problems. But it is often alleged that teacher governors cannot be impartial because of their personal involvement.

Teachers themselves may be the first to say this. One teacher (not in the survey) had applied for a post as head of department, and been somewhat disconcerted to find that the teacher representative at the interview was a man whose work she had criticized when she was a perpetually nervous teacher. She got the job, but she still thought it was unfair.

However, there are well-established and sensible guidelines about conflicts of interest that apply to all governors, not just teachers. As long as these are scrupulously followed there is no reason to forego the useful contribution teachers can make, especially to appointments.

It is rather offensive to suggest that teacher governors (chosen by the whole staff) cannot be trusted to abide by the rules. Many governors have some axe to grind, but fellow governors are usually quick to spot this and discount their arguments accordingly.

There leads on to the question as to what extent the proceedings of governing body meetings should be confidential. There is no shortage of those who want to keep everything secret, sometimes on the most spurious grounds. I once knew a head who refused to produce written reports for the governors, in case the documents got into the "wrong" hands.

In practice the governors in the survey had had few problems over confidentiality, though one respondent said that he was not allowed to report back to his colleagues. The real difficulty was not the leakage of sensitive information, but the lack of interest other staff took in what the governors were doing.

Most teacher governors were disillusioned about this. They posted up minutes and agendas, prepared reports for staff meetings, held discussions on special topics, but there was little response. Yet in contrast to the low level of interest, there was a high level of formal participation. Almost every teacher voted in the elections for



Old-style governors, used to rubber-stamping the head's decisions, are having to come to terms with the keenness of new governors who take their duties very seriously.

errors' attendance record at meetings was equaled only by the parents.

Heads sometimes assert there is no need for teacher governors because the staff are represented by the head and deputy head. This is rather like management saying that they represent the interests of the workforce.

However good the relations between them are, the perspective is different, and equally valid. Some heads shield their staff from the ordeal of reporting in person to the governors, but quite unnecessarily, as teachers are usually glad to have the chance to talk about their job.

This protectiveness may disguise a fear of potential conflict between the head and teacher governors. Heads may be anxious about maintaining their authority, and the more insecure this is the more anxious they are.

Teachers are just as nervous about publicly opposing the head. Yet in the survey schools, damaging confronta-

tions were rare. Heads in the survey found they could almost always depend on the support of their staff.

Yet if there are serious disagreements within a school between the head, senior staff or rank and file, ought not the governors to be aware of them? An effective governing body could be the forum where such disputes could be discussed and successfully resolved. Several teacher governors spoke of the greater insight being a governor had given them into the constraints to which the school was subject, and they felt they had a better understanding of the reasons for some unpopular and unpopular decisions.

Heads in the survey found they could almost always depend on the support of their staff.

**Felicity Taylor's project "Accountability in Education: the role of elected parent and teacher governors of schools and their relationship with their constituencies" was funded by the SSRC and sponsored by the Centre for Institutional Studies at the North East London Polytechnic. It concentrated on the governing bodies of seven mixed 11-18 comprehensive schools. Four were in Sheffield and three in Inner London. She attended at least one governors' meeting at each school and interviewed heads, parent and teacher governors, and a small number of pupil governors. The schools also received a questionnaire which was completed by 143 parents and 57 teachers.**

tions did not happen. Heads found that they could rely on professional support from the teacher governors, which was all the more convincing because of their electoral independence.

This was particularly useful when new teaching initiatives were being proposed. As one head said: "I can't know everything, and they can supply the different viewpoints of different ages and different disciplines."

Staff governors generally managed to work out acceptable ways of coping with differences of opinion. For example, heads would discuss their report to the governors before the "meeting"

presence and the support of parent and teacher governors at appointments as well as business meetings.

Can this get too cosy? Does it produce a hidden majority in favour of the status quo? Might it not be tempting, for example, always to promote Boggins, who is conscientious, hard-working, familiar and safe, when the school could do with the stimulus of new blood?

I think the Taylor Report got it right when it proposed that there should be equal representation of four groups: parents, teachers, i.e. the school community. The checks and balances

Nick Wood reports on a warning to halt dissection lessons

## Animal group threatens arson at school

A self-styled animal liberation group is threatening to burn down the animal house at a comprehensive school unless it bans dissection.

The warning by the Animal Liberation Front, which claims to have carried out 12 raids on nine schools and colleges in Dorset and Hampshire over the past 10 months, was issued on the doors of the biology laboratories at the 1420-pupil Ferndown Upper School in Bournemouth.

The spray-paint message said: "Stop dissection: next time we burn". The raid, carried out over the weekend, was the third on Ferndown since April. Some 50 white mice were taken from the school and two cages were placed on the tennis courts and set on fire. The school ninibus was doused with slogans and will have to be sprayed. Damage runs into several hundred pounds.

Mrs Margaret Tilley, the headmistress, said the school was taking the threat seriously. "There's no question of our restocking the animal house at the moment. People threatening to burn the school is something we cannot ignore."

Instead, the school will consider buying freshly killed animals from commercial suppliers when they are performed by sixth-formers who have to perform three dissections as part of their A-level biology course.

The school has already failed in its attempt to persuade the London GCE board to waive the requirement for biology candidates to do dissections. The ALF threat to the school was confirmed by Mrs Sylvia Bolt, a 35-year-old mother of two children living in Bournemouth, who acts as the group's spokesman.

"I believe the ALF means it," she said. "I'm sorry it has come to this, but at the last raid they discovered the school had more mice than ever. They were being kept in very dirty conditions and some of the baby mice had died and were covered in maggots."

Mrs Bolt claimed that dissections were carried out in front of children as young as 13 at Ferndown and that the school was "teaching children cruelty to animals."

There's no way they want to burn the school down - it applies to the animal house only. It will be carefully monitored and done properly."

Mrs Tilley denied that the mice were badly cared for or that they were dissected by children in the junior forms. "I feel angry because they (the ALF) are not interested in finding out what our animals are used for. They also show a total disregard for property and the students and the staff think the implication they are cruel to animals."

This is where staff governors can restrain the natural tendency of the head and staff to enter into a gloss over some inconvenient realities. Then the plan must be to open discussion with the whole governing body, and no plan is so good that it cannot be improved. When the school has had a chance to hear the governors' contribution, and a plan has been hammered out that all can agree on, the school is in a much stronger position to face with equanimity the attacks of the ignorant and the malicious, who are eager to pounce on any sign of vulnerability, and even on any sign of weakness. It can justify its demands for resources it needs to fulfil its aims.

After all, when you submit an account, you do expect to get an account.

Felicity Taylor's report is published in the CIS Commentary Series, available from NELPOC, Dunbury Park, Oxford.



"Liberated" Ferndown mice after the raid

Most of the mice were kept so children could study their behaviour and learn about genetics through breeding experiments, she added. Only occasionally did the sixth form require them for dissection.

Mrs Bolt denied that the mice and rats taken from schools and colleges were released in the wild. The members of the front made sure they all had "good homes to go to" before they were "rescued". But some frogs and tropical lizards taken from Winchester College, the leading public school, had been set free in a greenhouse.

Children were upset at the sight of animals being treated as "laboratory tools", she said. "If children see animals as creatures in their own right they will learn to treat them with respect. If they see them as laboratory tools to be treated as objects, to be killed and cut up, that will lead to them being violent in later life."

"I don't see why we should treat animals any differently from humans."

Officers of Dorset education authority are preparing an urgent report on the raids for the education committee.

"We will be drawing the seriousness of this matter - the attacks on our schools and the threat to the maintained system - to the attention of the education committee", Mr Robert Hymers, principal assistant education officer for schools, said.

"It's important the public should understand the responsible way in which the curriculum is handled in schools. The misinterpretations put on it by prejudiced persons should not be allowed free rein in the press."

Dorset police said they were treating the raids as burglaries. Inquiries are continuing into four separate incidents involving schools in the county.

"Clearly, the arson threat is viewed very seriously", a spokesman said.

● A Labour-controlled education committee wants to sever all links with examination boards that require dissection of animals as part of their courses (Richard Garner writes).

Newham council instructed its officers on Tuesday night to enter into discussions with the examination boards with a view to getting them to drop the requirement from their A-level courses in biology and zoology. If this proves unsuccessful, the officers have been told to see if there are any other boards which do not require the use of dissection.

In addition, a report is being prepared for the education committee on the keeping of animals in schools after the adoption by the authority of an "animal welfare charter" which states that schools should be disassociated from keeping animals.

Though there were cases where students were well read on their subject, much student work was very limited in scope and depth, frequently with poor spelling and grammar.

The inspectors also criticize the casual approach to study of many students, with lectures constantly interrupted by late arrivals and talk.

As a result, students were mostly unaware of conflicting theoretical perspectives; the majority of students only very slowly learned to marshal facts, classify material, and present arguments.

In the applied social studies course in particular some tutors did not seem

## NEWS

## Sir Keith threatens to probe poly's disputed courses

by Philip Venning

Sir Keith Joseph, the Education Secretary, has threatened to set up his own inquiry into sociology and social studies courses at the Polytechnic of North London unless changes are made in the light of a critical report by HM Inspectorate.

The report, which refers to weak students, narrow teaching, and courses which cannot fail, contrasts with an unpublished one produced by the Council for National Academic Awards, which re-evaluated revised courses earlier this year.

The CNAA inquiry was prompted by allegations by a lecturer, Miss Maryam Jeffrey, of Marxist bias and bad academic practices, allegations that the CNAA strongly reject.

The polytechnic, and the sociology department in particular, was a hotbed of student radicalism in the seventies, and the subject of successive edicts about left-wing bias. In 1975 Lady Cox, then a lecturer at the poly and now a confidante of Sir Keith Joseph, was one of the authors of a book claiming that PNL was being turned into a revolutionary political base.

Through the HMI report neither confirms nor denies political bias, it does say that in later years staff are allowed to develop their own perspectives, which "could, but need not, lead to bias".

It also refers to "narrow and partial" option dissertations, and the noticeable tendency of tutors to present limited viewpoints. "It is difficult to see why students should be subjected to them in an academic environment, through the tutor openly stated that they were views of the 'extreme left'."

Though no details are available of Sir Keith's possible inquiry, it is likely to consider wider questions such as how the CNAA could validate courses of obviously poor academic quality, and what is the best way of treating unqualified mature students for whom the courses are particularly designed.

The main burden of the HMI criticisms falls on the way that the staff attempt to compensate for the fact that few students have formal academic qualifications. This results in spoon-feeding, and the fact that students can opt out of parts of the course they dislike or find too hard. It is also accompanied by a casual and undisciplined approach to the subject.

"For those students not of the highest calibre, the teachers' summaries and interpretations of the material are likely to become the sole source of their knowledge, and they need to know. Over-simplification and even distortion can creep in."

"Overall, lectures and seminars together provided a classic example of the pitfalls of 'unstreamed' teaching; all too often, the attempt to solve these problems resulted in sub-degree level aims and spoon-feeding techniques."

It appeared "that in both teaching and marking tutors had over-compensated because of their concern to ally the natural immediacy felt by non-traditional students about assessment procedures and examinations. They were too preoccupied by the difficulties students might face in completing projects and dissertations and, as a result, had bolted into the courses elaborate procedures to allow for extenuating circumstances should students fail to hand in work for assessment. For similar reasons tutors circulated quite defined revision topics well in advance of examinations." The fail-safe procedures made it inevitable that almost all students passed.

Though there were cases where students were well read on their subject, much student work was very limited in scope and depth, frequently with poor spelling and grammar. The inspectors also criticize the casual approach to study of many students, with lectures constantly interrupted by late arrivals and talk.

As a result, students were mostly unaware of conflicting theoretical perspectives; the majority of students only very slowly learned to marshal facts, classify material, and present arguments.

In the applied social studies course in particular some tutors did not seem

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## NEWS

# More places and money give students hope

by Biddy Passmore

Prospects for sixth-formers seeking a higher education place next year grew distinctly brighter this week.

Not only has the Government urged universities to squeeze in an extra 4,000 to 5,000 students in each of the next two years (albeit with no more cash), but at least some of the extra money requested by the National Advisory Body for maintaining student intake to polytechnics and colleges is likely to be granted by the Department of Education.

This apparent shift in Government policy has arisen from increasing concern among ministers about the denial of higher education opportunities to bright young people. Up till now, the polytechnics and other public sector colleges have been able to "mop up" many of the 18-year-olds who failed to get a university place so that the proportion of the age group going into some sort of higher education has actually risen.

But the exercise to cut 10 per cent from the public sector, which is being carried out by NAB, starts to bite next year. And NAB recently told the Government it would need some £25m added to its planned budget of £560m if student intake to the public sector was not to fall by between 5,000 and 10,000 next autumn.

Ministers are not expected to agree to the whole £25m. But it now seems likely that NAB will be told to expect some £10m to £15m extra next year. The news should reach the NAB board

in time for its residential meeting next weekend when it will formulate definitive advice on the distribution of cuts among its 400 institutions.

Meanwhile, university vice-chancellors have been looking this week at areas where they could accommodate extra students next autumn at no extra cost.

They have received a letter from Sir Edward Parke, outgoing chairman of the University Grants Committee, asking them if they could admit additional students "so far as possible in vocational and technological subjects" in 1984-85 and 1985-86 only.

The letter says: "It will be for you to judge the continuing effect on your unit of resource. The Government is not proposing to provide additional funds apart from fees."

Sir Edward's letter follows one in similar terms that he received from Mr Richard Bird, a deputy secretary at the DES. Mr Bird suggested that universities intake next autumn might rise from its currently estimated level of 72,000 to some 76,000. Under the three-year contraction planned by the UGC in 1980, it would have fallen to 70,000.

The UGC's agreement to pass on the request represents a dramatic move away from its policy of protecting quality by maintaining spending per student ("the unit of resource") at the expense of student numbers.

Last Thursday, Lord Flowers, rector of London's Imperial College of Science and Technology and chairman of the vice-chancellors' committee, said



Lord Flowers: Standards must be maintained

the universities were prepared to take in more students provided that standards were maintained. "We are not prepared to take extra students beyond that without additional resources", he stated.

Now that rigid quotas have been relaxed, some institutions will be able to squeeze in a few extra students quite easily. At Imperial itself, for instance, 20 places in physics were cut this year simply to hold down the total intake, which can now be restored.

But some have already shed the staff or vacated the buildings which could have accommodated extra students. And others would prefer to expand their number of arts places, which are cheaper than places in "vocational" subjects and which many vice-chancellors feel are under-valued by the present Government. The final subject balance of the extra intake will rest with the UGC.

The whole exercise is being conducted against a background of continuing financial gloom. A recent letter to the UGC from Sir Keith Joseph, the Education Secretary, made it plain they should plan for further reductions and seek more private funding.

Sir Keith is currently arguing with the Treasury for extra funds for the universities and research. But the sums are small - perhaps totalling some £10m - and the cash would go towards items like superannuation, not funding extra students.

## Data bank to guide salary negotiators

by Richard Garner

A massive data bank is being compiled by teachers' salary negotiators to aid discussions on next year's pay claim, according to a confidential document prepared jointly by teachers' leaders and local education authority representatives.

Under the plan, the average weekly earnings for a whole host of professions since 1973 will be produced to compare with those of teachers. Teachers' leaders believe this will show just how far they have slipped behind other professions in their earnings.

The work is being carried out jointly by the secretaries of both sides of the Burnham committee, which negotiates teachers' pay. Evidence of the comparative earnings of teachers, police officers, the armed forces, nurses, social workers and a range of jobs in private industry will be produced.

According to the report, the information will also give a breakdown of the relative earnings for men and women in each profession. It is expected to be completed by January when negotiations on the pay claim usually begin in earnest.

In addition, the secretaries are asking the Department of Education and Science to supply relevant information for the data bank to 1970.

A working group to establish the data bank was set up as a result of last year's salary negotiations. Both sides emphasized then that it was not to be another comparability exercise along the lines of the Clegg Commission inquiry into teachers' pay in the late 1970s, but merely a fact-finding exercise to help both sides in their future salaries deliberations.

However, the teachers believe it will produce useful ammunition as they prepare to lodge a claim which will include a call for the restoration of their salaries to a level nearer those set by both the Houghton and Clegg inquiries.

Work is still being carried out on a report outlining the financial resources of local education authorities which the management side believe will highlight their limited ability to meet such a pay demand.

The report has been accepted by both sides - although they rejected a suggestion that the data bank should

also include information about morale and the quality of the teaching profession. It was felt this would be difficult to collate.

Meanwhile, the TUC's local government committee has affirmed opposition to any attempt by the Government to keep public sector pay increases down to 3 per cent in coming pay round.

A union leader has commended local education authorities for being "more positive" in their thinking restructuring teachers' pay than teaching union colleagues.

Writing in his union's magazine, *Schoolmaster and Career Teacher*, Fred Smithies, general secretary of the National Association of Schoolmasters/Union of Women Teachers, said: "It ought to be acknowledged that the working party on salary matters there has been more positive than from the management side has been teachers' mind."

Mr Smithies singles out the management's call for some mark of reward for good classroom teachers as one of the positive ideas put forward by management.

Mr Smithies adds: "In the foreseeable future the working party on either move towards firm objectives or the efforts to produce some beneficial will founder on the procrustean and exasperation."

He continues: "A crucial question whether or not the management is trying to exploit teachers as opposed to trying genuinely to recognise their worth and needs of teachers. I think that management approaches to the cash commitment need to buy what they are after."

Meanwhile, attempts by the management side to link pay and conditions of service in the salary negotiations were being discussed by teachers' panel of the working party yesterday.

At its weekend council meeting, the Professional Association of Teachers, which is represented on the Burnham committee, welcomed the proposal to link the two. Mr Geoffrey Clegg, assistant secretary, said: "We have never seemed in talking about alternative structures until conditions are taken into account alongside them."

## Muslim parents appeal to take over five schools

The Muslim parents' group whose bid to take over five Bradford schools and run them as Islamic voluntary aided failed last month is appealing to the Secretary of State.

Mr Riaz Shahid, secretary of the Muslim Parents' Association, said this week he had written to Sir Keith Joseph asking him to reverse the decision of Bradford council not to allow his association to purchase two first, two middle and a secondary school.

"The appeal is on the grounds that the present system does not cater for the needs of Muslim children. It does not offer the Islamic ethos. This results in a loss of self-respect and of identity. Roman Catholics, Anglicans and Jews have their own schools - so why not Muslims? It's an institutional form of racism."

The application to buy the schools was turned down because the council decided the Muslim Parents' Association did not have the backing of the remainder of the Muslim community and had failed to show it had the resources to buy and then run the schools.

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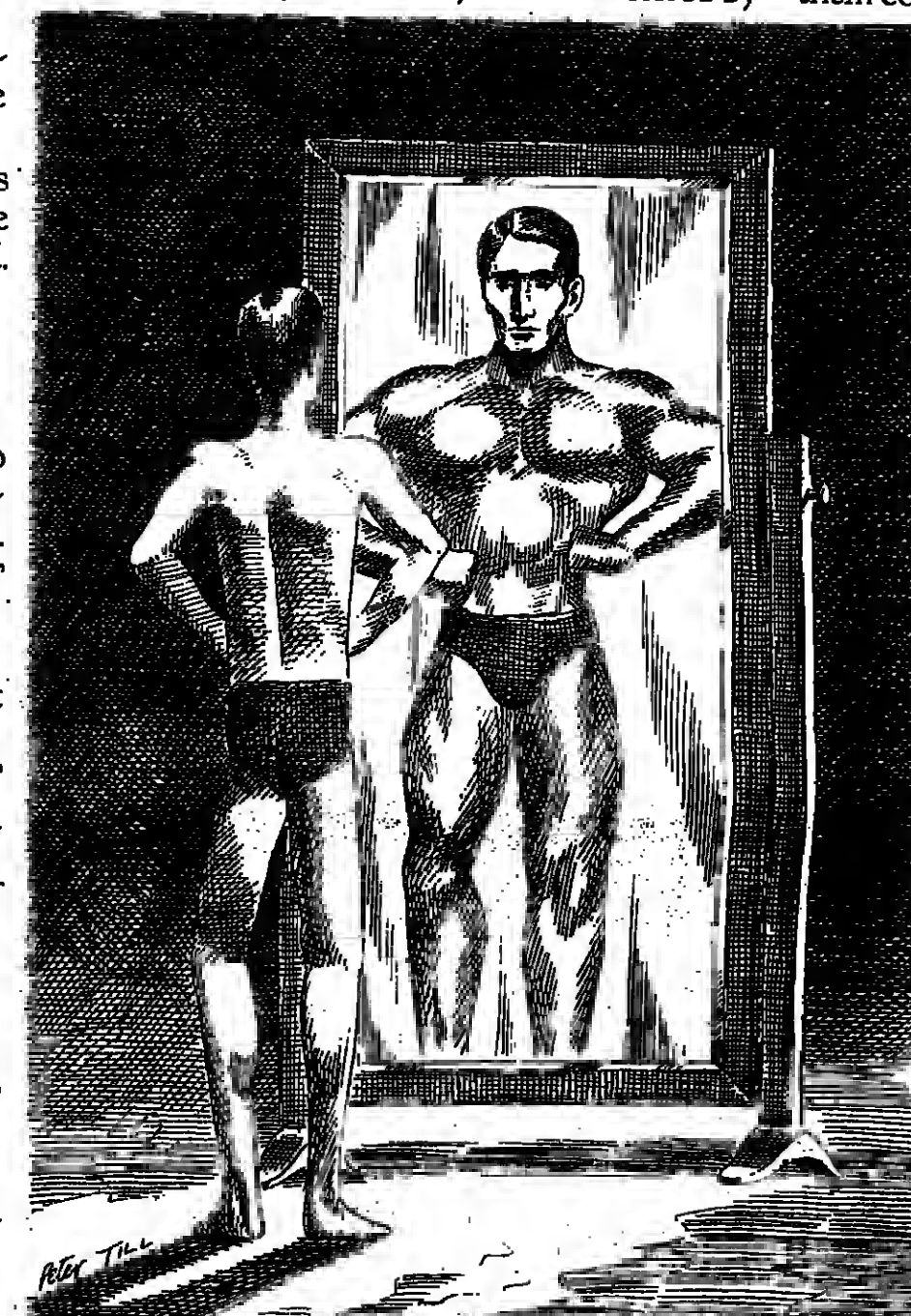
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## Place for dialect urged

by Diane Spencer

Black children should not be penalized for using a dialect or Creole words in English exams, the Schools Council says in a discussion document on its 'Assessment in a Multicultural Society' project.

It says bad spelling and punctuation should not always lose marks and all candidates should be given the chance to show their command of non-standard English. Questions based on a close study of Shakespeare's text should be optional, "bearing in mind the inherent language difficulties of the works".

Mr Laurie Fallows, the author, and former adviser on multicultural education in Lancashire, says teachers should be given more say in choosing

books and plays so as to reflect their pupils' backgrounds.

Exams should become school-based with the emphasis on assessment of coursework, although national standards and criteria must be established. The history exam syllabus should be drastically changed so that they challenge pupils to help to reduce racial prejudices and develop tolerance. Urges another discussion document on the same project, also published this week.

Assessment in a Multicultural Society: English at 16-plus by Laurie Fallows, and History at 16-plus by Nigel Fille, are available from Longman Resources Unit, 33-35, Tanner Row, York YO1 1JP, £2.50 each.

## EXTRA MATHEMATICS EXTRAS

The 16 page Mathematics extra in March 26 issue containing an article by Dr W. Cockcroft is available in reprint form. This, together with a four-page résumé on the Cockcroft Report, originally published in the TES, will cost 80p (p & p included). Send all orders to the address below, enclosing your cheque/PO (no cash please) made payable to Times Newspapers Limited.

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NEWS

# Nick Wood discovers great admiration for the PM among the independents

## A case of 'follow my leader' for get-tough heads

Mrs Thatcher's tough image is seen to have inspired many independent school headmasters to take a much firmer line over school discipline.

Mr Christopher Turner, headmaster of Stowe School which expelled 12 of its 650 boarders last term for taking drugs, said that heads were no longer afraid to be "authoritarian" and to insist that boys stuck to the rules.

Some of the credit for this shift in attitude should go to the Prime Minister, he said. "You may not like her policies, but people have responded to her tough line. It has been a success, and that's had an effect on schools."

Headmasters had generally cast off the permissive legacy of the 1960s, when "dangerous and destructive influences", notably the drug culture, had penetrated the schools.

Mr Turner added: "At that time, there was the theory that you should not overfill an adolescent's time, because you had to let him develop in his own way. Unfortunately, that gave him time to be bored and to take up with destructive cultures. There is a feeling we went too far."

School rules, at one time either defunct or non-existent, were now again in force, though not the "petty" regulations about, say, how boys buttoned their jackets.

Heads were not loath to read the riot act to the whole school if the occasion warranted it.

Regulations prohibiting smoking and illicit drinking were being systematically enforced by heads, masters and prefects, and wrong-doers faced tough sanctions.

At Stowe, these range from the cane, to military-style punishments,



Christopher Turner... cast off the permissive legacy

such as making boys do "hard labour" - cleaning school property, clearing waste ground, and shifting heavy objects - and instructing them to "parade" in the early hours of the morning.

Parents, aware of their children's need for good qualifications and fearful they might turn to drink and drugs, fully supported the crack-down, said Mr Turner.

# Catchment shift unjust to parent

by Biddy Passmore

Tory-controlled Bromley Council has been ticked off by the local government ombudsman for changing catchment areas of its schools without consulting parents and heads.

In its report, Dr David Yardley of Bromley's behaviour committee "non-administration causing distress". He has ordered the council to apologise to a parent affected by the change and to reconsider the catchment areas.

The school at the heart of the case, Coopers', a former technical school which lost its selective status in 1981, was reorganised in 1981, keeping two grammar schools.

After reorganisation, the catchment area for Coopers' and two other comprehensive schools stretched to middle-class Orpington and the north. But, for transport reasons, the council had to transfer some children to places at Coopers' given to children in Motingham and Redhill.

The new arrangements brought forth many complaints, both from Coopers' and from Motingham and Redhill. Coopers' head and governors regretted the loss of their "training links" with Pells Wood in Orpington.

Constant pressure from the governors and the headmaster brought the council to agree last year to reduce the number of children from Motingham and Redhill to Coopers'.

A Motingham parent, who had his son to attend Coopers', complained in the ombudsman about the consultation and said the council had an attempt to restore Coopers' selective status by the back door.

In his report, Dr Yardley said the council was not obliged to consult either parents or the council's education committee over the changes. He dismisses the council's claim that changes were just "a routine administrative matter".

He rejects, however, the suggestion that the council was trying to reduce selection through the back door.

# David Lister combs the Labour conference fringe in search of the educational policy-makers

## Education takes a back seat in the conference hall

The third of the four party conferences finishes today. And we still await our first debate on education.

True, the Socialists, Education Association tried, but failed, to get the Labour Party conference this week to debate the move to re-introduce selection in Solihull as an emergency motion.

The conference was also time-pressed to debate an SEA resolution on the Youth Training Scheme yesterday after the TES had gone to press. (This if, nothing else broke the record as the longest motion ever submitted to conference).

But the cuts in education, the 10-plus, the TVEI and the renewed selective-versus-comprehensive debate were put off for another year - as they were at the SDP and Liberal conferences.

However, as in the Edinburgh Festival, when the real thing fails to deliver, look to the fringe.

It was at the SEA meeting, held most inappropriately in a basement night club, that Phillip Whitehead, the number two shadow education spokesman, was losing his parliamentary seat in June, admitted in words of one syllable why we heard so little during the election campaign about the policy so assiduously worked out in the preceding four years on private schools, the 10-plus and the over 18s.

The party simply forgot. And, according to Mr Whitehead, it helped Labour to lose the election.

"There had never been such a careful preparation but come the election it was side-tracked," he said. "We knew from the opinion polls that education stood as second or third priority with the voters. I believe we knew it in the election."

There was a feeling that with Labour's chief education spokesman otherwise engaged for the last four months, the party had not really made its voice felt since the election either, with delays and then confused responses on the YTS and TVEI (Mr Whitehead says Labour is bitterly opposed to this "attempt at 14-plus selection" though several Labour authorities are not only pushing ahead with it). There had also been virtually no response at all on Solihull's move to re-introduce selection, or junior minister Bob Dunn's speeches in favour of the grammar schools.

The delegate from Solihull held out an amusing scenario. The authority wanted selection to be based on IQ tests in the primary schools. In California, he said, parents had been going to other states to have their children's IQ tested by back-street testers. Then they challenged in the courts for the school places they wanted. Visions of crossing the state line into Wales.

Mr Whitehead was confident on what would be one of the priorities for the next four years. "We will be occupied with fighting the back-to-grammar schools move. But we must also take further in the next Parliament the internal reform of our secondary schools, the reform of syllabus and the examination system; and in further and higher education we must go for a comprehensive system and right of entitlement."

"There were elements in our policy which were a bit novel and a bit strange even to some of our supporters. We must now consolidate them."

Novel and strange seemed to be the reaction of Labour educationists to the recent utterings of Professor Collin McCabe, an comprehensive schools with its solution of creaming off at 14. To the annoyance of party members this was widely interpreted as the view from the Left.

Caroline Benn told the fringe meeting that she had approached Channel 4 on behalf of RICE (the right to a comprehensive education) to put their



Graham Lane: forced to remain tight-lipped

Meanwhile it is worth noting that to face a Prime Minister and indeed an SDP president who have both been Education Secretaries, Labour now has a leader and deputy leader who were regarded as particularly effective education spokesmen.

Kinnock's four-year stint as education spokesman coincided with, or perhaps even inspired, the most concerted bout of policy-making for years. With him at the helm and Roy Hattersley second in command there is not for the first time an expectation that education will be upgraded in the party's concerns.

"We might at the next election," said SEA general secretary Graham Lane, "actually talk about our education policy to the electorate."

# Nine vie for NUT posts

Nine candidates are to compete for three top jobs in the National Union of Teachers - two vice-presidents and treasurer.

Under NUT rules, members vote for a senior and junior vice-president who both succeed in turn to the presidency.

Four currently serving executive members are contesting these elections: Mr Gordon Green, West Midlands executive member; Mr Ken Jones, executive member for Outer London who was secretary of Barking and Dagenham association at the time of the NUT's successful six-week strike against job losses last year; Mr Brian White, executive member for Dorset, Somerset and the Channel Islands; and Mr Bob Richardson, formerly general secretary of the Inner London Teachers' Association, who is still serving for the area.

The fifth candidate is the only woman to be contesting: Ms Carole Regan, at present treasurer of the Inner London Teachers' Association.

Meanwhile, a battle is developing to determine a successor for Mr John Gray, the outgoing treasurer.

Four candidates include the current president, Mr Don Winters. The others are: Ms Margaret Raff, executive member from Southampton; Ms Hilda Kent, from Westminster, a member of the STA; and Mr Harry Dowson, a long-standing executive member from Sheffield.

If Ms Raff is successful, both she and her predecessor, former NUT president Mr Jack Chambers, would retain their membership of the union executive.

# Union in contracts row

A teachers' union has declared a dispute with Ealing education authority over new clauses that have been inserted into fixed-term contracts.

Leaders of the National Union of Teachers in the Conservative-controlled west London borough are protesting over new "waiver" clauses introduced at the beginning of this academic year which would prevent teachers from claiming unfair dismissal if the authority decided not to renew their contracts.

The union believes that as many as 100 of the new contracts have already been signed and is warning that fixed-term posts will be boycotted next year if the clauses are not removed.

NUT officials have also accused the authority of acting illegally in asking a member on a three-month contract to sign a similar clause. The clause in this contract has since been removed.

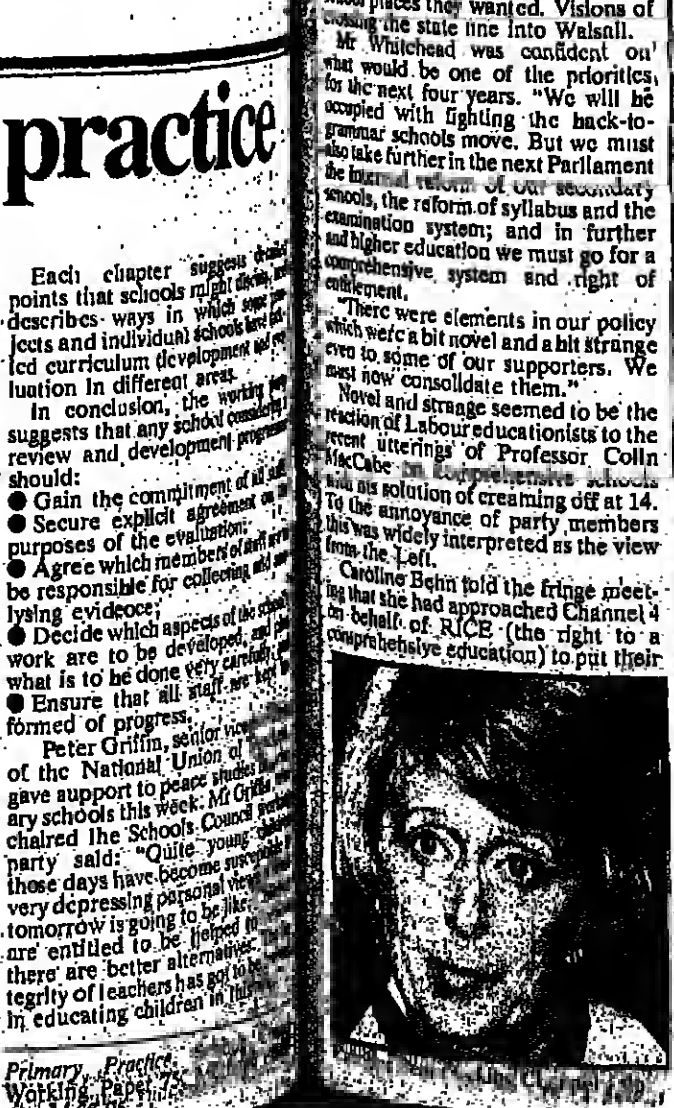
The union's legal department had advised the local association that it was illegal to introduce such a clause into contracts of less than one year's duration - and so the NUT had taken up the three-month contract separately with the authority.

Mr Gary Martin, Ealing NUT press officer, said the union wanted to see an independent arbitrator appointed locally to consider the dispute. "If this fails to resolve the situation, we would like national arbitration," he added.

Mrs Anita Fookes, chairman of the education committee, said the dispute over the three-month contract had been resolved and that the authority was looking at the question of fixed-term contracts again.

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# Organization means better practice



Greater computer literacy urged by the Schools Council paper

Primary schools are unlikely to improve their practice if they rely on informal organization leading to experiment and innovation. But, according to a new working paper, changes imposed from the top are equally unlikely to prove successful.

In *Primary Practice*, a Schools Council working party suggests ways in which schools could, review their general aims and practice in all main curriculum areas, improve assessment methods and planning, and organize teaching and resources more effectively.

The paper reviews recent surveys by HMI and others that suggest that organization, planning, assessment and record-keeping were very sketchy in many primaries. If teachers' aims were not explicit, it was difficult to see how others could understand or support them.

In fast-changing times the need for constant review of what was being taught was essential. Primary children should be introduced to issues such as computer literacy, democratic rights and duties, conservation, Third World studies, and ethnic and cultural diversity.

The working paper is intended as a follow-up to *The Practical Curriculum*, published two years ago, and will be distributed free to all schools in England and Wales. As well as reviewing aims and practice in science, mathematics, language and literacy, social studies, aesthetic education, and religious and moral education, the document considers cohesion through topic work, and concludes that it is far from easy to record and assess what pupils have learned through a single topic, and even harder to ensure progression and coherence in topic work.

# ILEA looks for model primaries

An Inner London working party on primary schools has been asked to identify schools that have been particularly successful with working-class and ethnic minority children.

The working party, to be chaired by Mr Norman Thomas, former chief executive for primary schools, will include three parents and a trade unionist.

London Education Authority inspectors are expected to report by autumn 1984.

Mr Freddie Morrell, leader of the ILEA, said they were not looking for a "model" representative of primary practice, most schools were responding well. But some schools had a "specialist" on the achievement of working-class and ethnic minority children.

The working party will have access to the preliminary findings of an ILEA longitudinal study of primary pupils (the cohort are now third-year Juniors). Another ILEA working party on secondary education chaired by Dr David Hargreaves, of Oxford University's education department, is expected to report by autumn 1984.



Primary Practice Working Party



## NEWS

Bradford education committee narrowly escaped losing the goodwill of the city's Asian community last week when a move by the opposition Labour group to press ahead with a merger of the two remaining single sex schools was just defeated.

Had Labour won, months of hard work by politicians from all parties, community leaders and officers from the chief executive down, would have been severely undermined.

Single sex schooling was one of the main demands in the Muslim Parents' Association's call, earlier this year, for five of its schools to be established with grant aid. The council's willingness to meet their demands by speeding up the implementation of its multicultural and equal opportunities package helped to persuade Muslim leaders that the city's schools were best for their children.

But the attempt last week to implement a 20-year-old education policy based on different circumstances and ideals could have shattered the newly-won trust of the minority community.

Other local authorities see Bradford as a leader in the field of race relations and multicultural education. Yet Bradford had no policy on race until 1981.

In the late 1950s men from the Mirpur district of Kashmir and from Pakistan began to arrive in the city to fill vacancies in the textile industry. Later they brought over their wives and children and by the early 1960s Asian children were to be seen in the schools.

The education committee decided to bus the children to ensure that each school had no more than 10 per cent of immigrants. It was thought this would help assimilation and improve their English. Bussing continued until 1979 and the "accepted" percentage of immigrant children rose to 33.

By 1976 the policy had aroused resentment and intense opposition from Asian parents. A campaign against it was supported by a variety of organizations including Asian community groups, Labour Party branches and the Community Relations Council.

But the education department resisted, arguing it was trying to promote equality of opportunity. Bussing was only abandoned when the Commission for Racial Equality threatened to conduct a formal investigation into educational policies in Bradford.

By then, local politicians of both parties began to realize that minority group votes counted and it was, perhaps, time that these communities were consulted. At the same time Asian groups, especially the Muslims, were learning how to make their voices heard.

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Diane Spencer looks at the background to a city's multicultural policy and (opposite) sees how it is working out

## How Bradford held on to its lead in race...

Another factor was the pressure being put on the education department from within the mighty corporate management structure which the council have adopted after local government reorganization in 1974. This pressure came from a policy unit capable of initiating inter-departmental policies.

Bradford's chief executive, Mr Gordon Moore, had already changed his attitude on race. When he first arrived there he had thought: "They will jolly well have to adapt to us". But he came to realize that that view was untenable.

In March 1981 the unit prompted heads of department to publish a document called "Turning Point" which suggested a new approach to race relations. The education department was especially charged to take heed of the demands and needs of ethnic minorities, as it was predicted that by 1996 one-third of Bradford's youngsters would be of Asian descent.

For Bradford this came not a moment too soon. A few months later there was rioting in Brixton and Tottenham and it took little imagination to see smoke rising over Manchester.

Formal consultations between officers and councillors on the newly-created all-party-race relations advisory group, and the local community representatives began for the first time.

Previously, according to one officer, the town hall occasionally received

### Bussing was seen as helping the assimilation of young Asians

small delegations of "ultra courteous" Asian youngsters who came to discuss a particularly pressing problem.

A race relations policy, it was pointed out, followed which said: "Because of the size, structure and ethnic diversity of its population, good race relations are now a matter of fundamental importance to almost all aspects of Bradford's well-being." In a 12-point programme it pledged the promotion of equal opportunity and emphasized the strengths of cultural diversity.

The consultations showed that most grievances centred on education. The Muslim Parents' Association, representative of 1,000 parents, was particularly critical. It demanded single sex education for girls, withdrawal of Muslim children from PE, swimming and religious education, and the provision of halal meat.

It was these demands which formed the main points of a local administrative memorandum - always referred to as the LAM - sent to headteachers by Mr Richard Knight, the director of education, in November 1982.

cultural society: provision for pupils of ethnic minority communities, aimed at providing information and advice on cultural and religious differences within schools was ready to encounter.

Before the LAM was issued, there was some evidence of good practice, but it was patchy. The LAM stated: "There is a need for consistent and common practice across the district and there is need also for both ethnic minority parents and headteachers to be perfectly clear about their rights and duties."

It added that education in Bradford sought to find ways of preparing all children for life in a multicultural society; counter racism and racist attitudes and the inequalities and discrimination which result; and build on the strengths of cultural diversity.

It called for heads to develop relationships with parents, provide them with information in their own language; allow pupils to withdraw from assemblies and religious education; and stay at home for festivals; make special arrangements for Muslim prayers; allow pupils to wear clothing and ornaments according to their faith; and provide separate PE and swimming lessons for boys and girls above the age of puberty.

The document concluded by telling heads to discuss the contents with staff. All minority organizations were invited to discuss their views and local mosques

issued pamphlets on parents' rights in the appropriate language.

Mr Michael Whitaker was drafted for six months from the chief executive's office to become assistant to the director of education to make sure the LAM and the council's policy was carried through.

He pointed out that although the LAM got the most publicity and strong reaction from schools it was part of a much bigger package. A new curriculum for both religious and multicultural education are in the pipeline, so are guidelines on combating racial harassment in schools.

Halal meat was introduced last month in 10 schools and Asian are

### The separate schools plan shocked Bradford into speeding up reforms

being encouraged to become school governors. About 50 supplementary schools are being urged to use school premises for their own teaching. The authority will provide them free for religious teaching. Advisory and liaison staff have also been strengthened, as has mother tongue teaching.

already underway as part of the opportunity policy so that teachers are sensitive to the needs of ethnic minorities and are able to combat discrimination and prejudice.

By last April every recruitment post in the authority contained at least one trained member of staff. Steps are being taken to ensure that all those appointed will be sympathetic to the city's race policy.

A huge programme of in-service training for teachers in multicultural education and racial awareness has also begun. A similar course for governors will start soon. Appointments are already being made and reasons stated why a particular candidate has not been chosen.

Scarcely had heads decided the LAM when last January the Muslim Parents' Association put its proposals for five Muslim schools.

Once again this served to concentrate the minds of educationists and politicians: they had to give evidence of good faith to the Muslim community and first.

By the summer they succeeded in persuading the Council of Mayors, representing Muslim organizations in the city, of their sincerity. By 21 votes the council decided not to back the MPA's proposal.

The shock caused by the plan for separate schools led to the education department speeding up other reforms. But it is clear from last week's plans over the single sex schools that officers and councillors were not to let their laurels just yet. No one spoke of Manningham, perhaps. But the MPA, dismissed by Mr Peter Gillmore, chairman of the education committee, as a one, or at best a two-year plan, cannot be ignored.

Mr Gordon Moore, said: "We have moved a fair way to go. But we have a long way to go. But we have a head of steam and there is no turning back."



Helping hand in PE

## NEWS

## Halal meat poses food for thought

"If it was fish fingers on the menu, halal meat would lose, hands down," remarked Mr Kevin McGee, head of Manningham middle school - one of five that the Muslim Parents' Association planned to buy. It has 97 per cent Asian pupils speaking seven languages.

Halal meat comes from animals other than pigs slaughtered according to Islamic law and ritual. It is served twice a week in 10 schools for some of the 14,000 Muslim pupils in the city's classrooms. At Manningham, some pupils took a little persuading that the meat really was halal, until a representative from the Council of Mosques joined them one day for lunch. In nearby Whetley first school, also one of the five, the younger children needed no convincing.

The education authority plans to extend halal meals to all schools with more than 10 Muslim diners within two years, demand and unions permitting. Apart from protests from so-called animal welfare groups and abusive telephone calls to the chairman of the education committee's home, the scheme had a smooth introduction at the beginning of term.

Mr Michael Whitaker, the officer in charge of implementing the education side of the council's race policy, was keen to emphasize the importance of halal meals as "a tangible, edible proof of our good intentions".

The local administrative memorandum (LAM) issued to schools by the director of education last November giving instructions on multicultural issues to heads, was as yet just a piece of paper as far as many parents were concerned, he added.

Mr Jane Bingham, deputy head of Whetley, and Mr McGee said they welcomed the LAM although they had

**The progress made in the past 15 months has been very, very good - not just in changing the policy of the authority, but in the changing attitudes of the people working in the authority.**

already been doing many of its suggestions.

"It heightened our awareness," Mrs Bingham said, "and clarified the issues."

In both schools, assemblies are more like meetings based on themes. ("Teeth was one current theme at Manningham," in Whetley, Mrs Bingham said staff used to try to adapt material to suit different religions. Since the LAM they have taken a secular approach using stories and songs. So there is no need for parsons to withdraw their children.

Contacts with parents have improved for both schools. At Manningham less than a year ago before Mr McGee took over as head, only 20 or so out of a potential 600 would attend evening events. "We looked at the issue, language and the need of coming into school, and tried to overcome any difficulties," Mr McGee asked all the children to invite their parents, whom they would accompany and act as interpreters for. He provided a creche, tea and biscuits. In the end, 220 turned up.

At Whetley, Urdu and Arabic classes take place after school, as parents requested.

Mr Carlton Duncan, of Wyke Manor Upper School, serving a mainly white working class area on the outskirts of the city is Bradford's only black head. He welcomed the LAM, but said it was not so far enough. He would like more direction on the curriculum.

To work properly, the curriculum would need more resources, he said. At present eight of his pupils, who opted out of PE, so he needed more teachers to occupy them usefully. He agreed that Muslim girls should be allowed private showers, but who would provide curtains? Above all, the curriculum must be monitored to make sure heads were complying with it.

The LAM had received a mixed response. It was clear that many teachers and heads resented the way it was imposed on them. It had to be made clear that it was not a threat to their autonomy. It was a challenge to their thinking, back to the drawing board, said Mr McGee.



● Above: 'Edible proof of our good intentions' is the significance of halal meat for lunch at Whetley first school. Top, right: girls allowed to wear track suits for PE at Manningham middle school.



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## OVERSEAS

## Catechism and a bitter schism

## SPAIN

James Connell on a smouldering Church-state feud.

The deteriorating relations between the Spanish Roman Catholic Church hierarchy and the Socialist state may be approaching breaking point after the Government ordered the withdrawal of 200,000 catechisms from circulation in public and private schools.

The mini Church-state war started even before the Socialist victory in last year's general election, when religious teaching shrouded anti-leftist propaganda. The Socialists have never forgiven that.

The uneasy relations with the administration turned sour over the Church's teaching on the controversial divorce law, and on the as yet unpassed abortion laws.

The new catechisms were printed and put into distribution by the Church authorities in June without official permission from the Ministry of Education.

No textbook may be used in private or public schools without going through a complicated vetting system, centralized in the ministry.

After lengthy examination, textbooks are frequently returned to the prospective publisher with "observations", which entail an obligatory text change, or "suggestions", which underline didactic policy.

The approval is often tardy in view of editorial deadlines, and in the case of the catechisms, Church authorities claim that they submitted them in May this year, but, in the absence of a reply, were forced to print to have them available for the new course in September.

The catechisms involved are for the fifth and sixth-year primary courses and include not only bare statements of Church doctrine but ample interpretation and orientation.

The chapters relating to abortion in the revised versions have been streng-



Disobedience could cause staff to be heavily fined.

thened and compare the gravity of the offence to terrorism and unjust wars.

This text is apparently the straw that broke the back of the Socialist camel, and with legislation pending on the subject, is considered to be a direct challenge to the civil administration.

Since the restoration of democracy, Spanish governments have been trying to oust the Church from its previously entrenched position in public life and draw a line as to its legal jurisdiction.

The Socialist's attempts to create a purely lay state have met fierce opposition from religious quarters, especially in matters affecting education, where the Church still has a 30 per cent share of the school sector.

Church spokesmen claim that a

state-Vatican Concordat entrusts them with exclusive rights in the design and implementation of religious education and related textbooks.

Nevertheless, a previous government order of 1980 dictated that religious school books should pass through a double filter, that of the episcopal and the government office, and the definitive one should be that of the state.

The recent government circular withdrawing the controversial catechisms is unlikely to be the last salvo. In a statement, Church spokesmen made veiled references questioning the legality of the order before withdrawing the offending catechism.

Education officials have also made it

equally clear that disobedience could involve fines ranging from £500 to £1,500 plus the withholding of subsidies which, in the case of the private Church-influenced schools, would mean closure.

State schools, where religious education is optional and depends on parental consent, are certain to live the ministerial line.

State sources, in any case, have tried to play down the importance of the measure, emphasizing the purely didactic inaccuracies of the catechism's teachings on abortion, and have promised to set up clear Church-state communication channels to avoid future misunderstandings. Nevertheless, the highly vocal Federation of Religious Teachers has urged schools to go on using the new text, despite any penalties the Government may impose.

Radical left wing trade unions have supported the government stand in the catechism war, while the conservative opposition has deplored state intervention in religious education.

Some observers think that the catechism controversy has been subtly manipulated by religious pressure groups to add fuel to the impassioned discussions about the Right to Education Bill.

This Bill, regulating the flow of cash in both state and private schools, leans heavily in favour of the former and is seen by late clerics as an attempt to strangle the private schools by starving them of state grants.

The attitude of the religious educators is that to offer a true "freedom of choice" policy, the private and religious schools should be financed by public money - an argument directly opposite to Socialist thinking.

The Bill, now being debated in Parliament, is meeting enormous opposition, not only from the religious lobby, but also from the autonomous Basque and Catalan regions, who want more educational home rule and more money to implement it.

In an attempt to save the disintegrating Church-state relations, Senator Felipe Gonzalez, the Prime Minister, will meet the Pope when he visits Spain next month.

## A new look budget where parents pay

## NETHERLANDS

Lynn George on how areas of special attention.

Next year parents of Dutch school children will have to pay tested school fees, it was announced last week.

The move, which was announced (TES, September 16), will mean saving of 140 million guilders (the Dutch guilder is equal to 10 cents).

The Government is seeking 350m guilders from the 2.6m-guilder education budget and to trim students' grants (24m), scrap non-examination fees in the top classes of secondary schools (21.8m guilders) and cut back on school buildings and teachers' salaries.

From the 176.3m guilders for policies, 50m, is destined for the short professional training and secondary education. The new schools for primary school children and education for minority groups also given a helping hand (4m guilders extra, respectively).

Four major areas of attention in the coming year are education, computer, female emancipation and disabled children.

In adult education preferred given to paid educational for unskilled workers. No money is made available for educational but 50,000 workers a year will be studied on full pay for performance from one month to a year in jeopardizing their jobs.

This can be achieved by making them temporarily with long-term employed workers who will be working for their unemployment benefit. It is hoped that the gain will increase both on the labour market and on the government's side.

The Government is also considering providing child care facilities for mothers and housewives on security who wish to participate in adult education of some sort.

## Measuring the cost of living in terms of child mortality

## UNITED STATES

Sally Reed on why new life styles have resulted in new ways of dying for the young.

Recent changes in the American life-style, including family structure, eating, and sexual mores and values, are posing new threats to the nation's children.

Infant mortality rates are rising in many urban areas of the United States, and are higher in some cities than in Honduras, the poorest nation in Central America.

Immunization rates for pre-schoolers have gone down each year since 1978 with over half of inner city and minority children receiving no polio vaccine.

Medical researchers also report an increase in growth failure among small children because of malnutrition and starvation. One pregnant mother in 20 gets little or no prenatal care. One million children a year are abused, 1,000 a year die as a result.

These, alarming statistics were quoted by speakers at the first national conference on the "Impact of lifestyles on child and adolescent health problems" co-sponsored by the American Medical Association and the Illinois and Chicago medical societies.

One point that was repeatedly stressed was that social and medical problems were inter-related. The increasing use of alcohol and marijuana by teenagers had, for example, led to more fatal road accidents involving young people.

Professor Edward Hughes, of the Northwestern University Medical School, said that one baby in five born to teenage mothers dies owing to lack of prenatal care.

And Ms Wendy Baldwin, from the National Institute of Child Health and Human Development, Maryland,

stated that one million teenage girls a year are getting pregnant - largely due to ignorance and lack of sex education.

"Half of the teenagers arriving at family planning clinics are already pregnant," she said. "And they are getting pregnant earlier than in previous generations."

Another speaker, Dr Charles Johnson, of the Children's Hospital, Columbus, Ohio, attributed the link between child abuse and teenage parents to the fact that most teenage pregnancies are unwanted and that teenagers know little about child development and health.

A survey he had conducted among senior high school pupils in Iowa had revealed that they thought a baby could be toilet-trained by six months and know the difference between right and wrong at 52 weeks. For many teenagers, the information about child rearing came from television programmes and the unrealistic expectations they created led to frustration and, ultimately, to abuse.



Most teenage pregnancies unwanted.

## Science seen to hold solution to industrial ills

## CZECHOSLOVAKIA

by a special correspondent

Science for all - from kindergarten up to university - must be a major aim of education, according to Mr Milan Vondruska, Czechoslovakia's Minister of Education.

Syllabuses at all levels, he emphasised, should be "adjusted" so that science could be integrated into all educational activities. At the same time, there should be a "familiarization with the labour of manual workers" and an increase in the number of vocational training schools.

Mr Vondruska's remarks come at a significant moment in Czechoslovakian educational history. This term the 1976 reform of secondary education will be fully implemented. Under it, pupils will complete eight years of primary schooling, then have two years of secondary, either in an old-style grammar school, or in one of the new vocational secondary schools. Before 1976 only the eight years of primary schooling were compulsory.

Accordingly, press and politicians, representing both the Federal Government and the Czech and Slovak republics, have been reviewing the progress of the new system.

The Slovaks, in particular, claim that 10 years of schooling is still insufficient. The Slovak National Council wants more efforts to increase the number of young people staying on for the full four years of secondary education.

The "work familiarization" scheme, too, it appears, is drawing considerable criticism. This programme, which is a standard feature of socialist educational theory, seems particularly difficult to implement. In Bulgaria, for example, so much emphasis is placed on the ethical "value" of "productive work", that pupils often spend their work-practice time on meaningless routine tasks. In Czechoslovakia, on the other hand, work-training is done in the more exciting branches of industry, but many school-leavers later find that the only vacancies for them are on some dull production line.

Work-training, it is now suggested, must be adjusted so that pupils end up in a job "corresponding to the needs of the economy". Furthermore, they



The aim is to integrate science into all educational activities.

must be told firmly that this will not necessarily be in the factories where they studied.

Mr Vondruska's emphasis on science, therefore, cannot be viewed simply as a commitment to training more scientists. Since the early 1960s Czechoslovak theorists have been discussing the Marxist implications of the "scientific-technical" revolution in which "science" will replace "labour" as the ultimate producer of "value". Sustained efforts by the Government and planners to introduce the

latest scientific and technological developments, however, still result in considerable bottlenecks. But this, it is maintained, is not the fault of the scientists, who (it is claimed) have adequate personnel and funding to carry out their tasks. Rather, it is the industrial planners, managers, foremen and workers who fail to take advantage of the new technologies. Upgrading science in schools, Mr Vondruska apparently thinks, is the only long-term solution to the difficulty.

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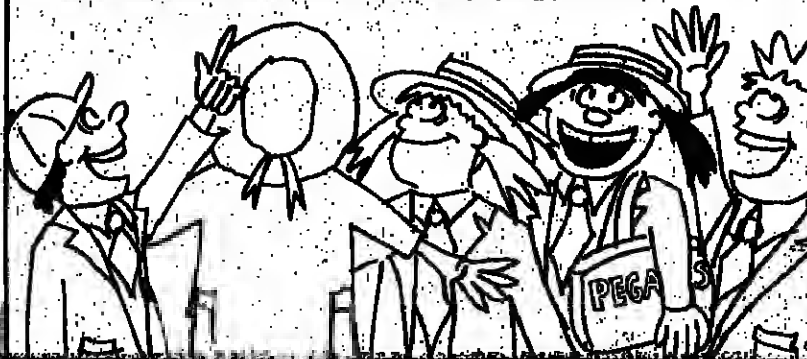
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## UN teams plan aid for young addicts



The UN project follows Britain's decision to spend £6m on rehabilitation.

Three United Nations organizations concerned with education, health and labour are launching a joint strategy to help young drug addicts in the rich world.

The three agencies - Unesco, the World Health Organization and the International Labour Organization - have been brought together at the initiative of Mrs Tamar Oppheimer, the Canadian director of the UN Division of Narcotic Drugs.

The project, which has still to be worked out in detail, follows the British Government's recent decision to invest £6m in a drug addict rehabilitation programme. Other countries may well follow suit.

At a conservative estimate, the rapidly rising number of drug addicts - mainly young people - within the European Community now amounts to 200,000. This compares with about 600,000 in the United States. Growing youth unemployment and cuts in education and social welfare budgets have been blamed for the rise.

The project, which has been endorsed by the UN's Economic and Social Council and approved by the General Assembly, widens a five-year-old global policy initiated by Nordic Europe to fight drug addiction by eliminating the sources of supply.

Mrs Oppheimer, who was a key figure in the third UN congress for the prevention of crime and treatment of offenders, explained: "Demand is an

important aspect of the complex problem of drug abuse. Unless illicit demand can be reduced, efforts to reduce illicit supply will be frustrated."

The Nordic Council, representing Denmark, Finland, Sweden and Norway as well as Iceland, declared its policy of releasing development aid funds to finance crop substitution in the opium-growing Asian countries in 1977 when their own combined population of drug addicts exceeded 10,000.

Many countries, including Britain, Australia and New Zealand, joined the Nordic effort and it led to vast and initially successful projects in Thailand, Burma and elsewhere, intended to persuade peasants to switch from opium poppies to alternative crops such as coffee and kidney beans.

Since then the crises affecting Afghanistan, Pakistan and Iran have turned the Middle East into a major exporter of inexpensive, top-quality heroin which has flooded the prosperous, desperate black markets of the West.

Hence the expansion of the Nordic initiative to confront the heroin trade both at the production and consumption fronts. "When demand is maintained," Mrs Oppheimer comments, "the elimination of one source of supply will be offset by the emergence of others."

Thomas Land

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LETTERS

Graded papers make better exams

Sir - You are quite correct to be disturbed and agitated by the proposed interventions of Sir Keith Joseph into the proposed contents of the syllabuses for the 16-plus examinations, and I fully agree with your contention that the contents should be decided by the boards of examiners.

However, on the matter of the method of examination, I hope you will disagree with the boards and persuade them to use different methods. At present, the only boards who have made up their minds upon a method have chosen the "petal" method. In mathematics, for example, there will be a main core Paper 1 lasting two and a half hours, compulsory for all candidates; and in addition each candidate may choose to take one

paper from the other three papers which will be easy, moderate, and difficult.

The other method which has been canvassed but which they have not chosen is the "graded" method of papers - four papers each of two and a half hours of four grades of difficulty. The two methods would look like this:

**Petal method**  
Paper 1 for all  
Paper 2 for CSE 3, 4, 5  
Paper 3 for GCE "C" or CSE 1, 2  
Paper 4 for GCE "A" or "B"

**Graded method**  
Paper 1 for CSE 4, 5  
Paper 2 for CSE 2, 3  
Paper 3 for GCE "B" or "C"  
Paper 4 for GCE "A"

The graded method is better because:

- (1) each paper covers a narrower range of ability and is therefore easier to set, easier to mark, and easier for the candidate to work towards;
- (2) the decision as to which papers to take is easier in the graded method as the candidate or his teacher need only have an approximate idea of his expected standard in order to decide which two papers to sit for. By contrast, for the petal method, many candidates who are quite bright but not very confident will opt for paper 3 to be on the safe side (because if they enter for paper 4 and have a disaster they might get no grade at all - this is particularly possible in mathematics for which a student's classwork throughout the year might be good due to hard work and moderate understanding of the topics, but he might get

confused by the continued difficulties in paper 4 of a lot of hard questions, and get no marks at all). It can also be expected that students at the other end of the ability range might have ambitions beyond their ability and wish to enter paper 3 (perhaps because they may consider that is the only qualification worth having) and again they might come a cropper. Finally, what is the point of the potential GCE A students entering for the comparatively trivial paper 1?

It is for more sensible to have the graded system because then students can enter for one paper in hope of getting a high grade, but also enter for the paper which ensures that they will get the grade just below if they do not do quite as well as they had hoped.

On the matter of filling these papers into a timetable, both methods can be done on the same time table. For the petal method, paper 1 would be for two and a half hours in the one session, and papers 2, 3 and 4 would be held simultaneously in another session, that is two sessions in all.

The graded method can also be done in two sessions like this: first session, papers 1 and 3 simultaneously; second session, papers 2 and 4 simultaneously. This caters for the three possibilities (1 and 2) or (2 and 3) or (3 and 4).

R SUMNER  
48 Hillcrest Road  
Camberley  
Surrey

D CROFTS  
4 Moorland Road  
Edgbaston  
Birmingham

Question answered

Sir - Is it not becoming clear that the Education Secretary will soon have to decide whether or not to merge the GCE and CSE examinations in a unified 16-plus? There is now a sufficient number of GCE boards prepared to commit resources to developing graded examinations to remove the necessity for having other bodies offering assessments at stages below O level.

I doubt if parents in general would

be able to distinguish between, say, a graded test at level 5 and a CSE examination when the former is the fifth of a series of tests available to pupils at any age of secondary education prior to the 16-plus examination itself. My guess is that they will opt for the certificate with the most prestigious style of accreditation; such is human nature.

An apt question, therefore, is whether the Education Secretary will ask the Secondary Examinations Council to require the boards to submit their criteria for the emerging

Science training

Sir - I read with interest Mr David Smith's extremely encouraging article "Love at first sight" (TES, September 16) and hope that it will lead to much further discussion and development in primary science.

My involvement in science with young children has led me to realize that there exist many obstacles to the implementation of David Smith's approach. One of these is the problem that many teachers required to teach primary science have very little science training. This was brought most forcefully to mind when I was invited to speak to primary-method students at a training college, where their confidence with science work did not match the confidence shown in English, history, and other curriculum areas.

We need to be continually reminding ourselves that we are not alone in this. We also need much in-service work to help build up our confidence. Colleagues involved in science with young children also need to show a lead and help guide those of us who lack the experience.

STEPHEN WATTS  
Head of Social Studies  
Worsleydale Middle School  
Dent Street  
Blyth  
Northumberland

In the bank

Sir - In recent weeks, there has been some correspondence in your columns about the possibilities of teachers and lecturers being given some practical experience of business and industry.

My involvement in science with young children has led me to realize that there exist many obstacles to the implementation of David Smith's approach. One of these is the problem that many teachers required to teach primary science have very little science training. This was brought most forcefully to mind when I was invited to speak to primary-method students at a training college, where their confidence with science work did not match the confidence shown in English, history, and other curriculum areas.

ALAN HOLME  
Lecturer  
Business Education Faculty  
Parker Lane College of Further Education, Leeds

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Holding the baby

Sir - I read with great interest the article "Dear Sir" by Audrey Wootton (TES, September 23).

In the summer of 1981 I was interviewed by Miss Wootton for a post of Darwin School. One of the questions put to me in the course of that interview was: "What would you do if your child/children suddenly dropped down dead?"

In view of Miss Wootton's evident concern about the "small personal slights" inflicted upon female headteachers, am I to assume that she habitually questions male applicants who are also parents as to their most likely course of action in the event of the sudden demise of their children/children (in most cases their wives)?

Incidentally, I have never been asked this particular question by any headmaster and did, in fact, secure a

similar post soon afterwards at a school whose headteacher (my wife) was more interested in my teaching ability and in my record of proven reliability, both before and after producing children, than in my domestic arrangements.

G J ELLIOTT  
7, King St South  
Bridgford  
Chesterfield  
Derbyshire

Wrong sex

Sir - Audrey Wootton is not alone. More than half the letters of enquiry I get start "Dear Madam".

ROBERT WACKINGTON  
Secretary to the Governors  
Schools of King Edward the Sixth  
Birmingham

Duty for one is toleration for the other

Sir - As a newly-appointed woman head of a large mixed London comprehensive, and working pretty long hours and having a husband and two children aged six and two, I was interested in your front page article on the early retirement of the country's only woman CEO (TES, September 23).

"She doubted whether many men were yet prepared to tolerate (my female) their wives putting in a 15-hour day".

The toleration or otherwise of women doesn't seem to have prevented large numbers of men taking up senior positions, surviving, very long hours. When it's the woman who is left at home with the children the world doesn't seem quite so tolerant.

G WATFORD  
Head  
Abbey Wood School  
London SE22

What price culture?

Sir - Oonagh McDonald's review of the new Adult Education "The Poverty of Theory" (TES, September 16) raised some important issues, at least of which was her last: "Are we a post-industrial society? Does it require a radical re-examination of adult education?"

Adult education in Britain is a period of transition, as is the economy. Much adult education is now in counter to the class-based education system of the school, colleges and universities. Whether or not that was the right approach is a matter of judgment, but I no longer see it as appropriate.

In his seminal work, *Culture and Society 1780-1850* Raymond Williams argued that culture was the key concept of modern social, economic and political life and the key to its understanding. "The development of the word culture is a record of the changes in our social, economic and political life, and may be seen, itself, as a special kind of culture, means of which the nature of changes can be explored."

We may or may not be in a post-industrial society, but we are certainly living through a period of low power after which several options are possible. The best would be a general "development-oriented" approach which made culture central to social and economic life. The transition needs actual beauty even more than bread," wrote D H Lawrence. When culture is central to our outlook a new map will be possible.

PETER GALPIN  
Lecturer in general studies  
City of Leeds College of Music

Wealth of theory

Sir - I do think that when you enter on one of your very rare reviews of adult education, you might choose a writer who knows something about the subject. Oonagh McDonald's article displays an ignorance and/or only by her prejudices.

The Workers Educational Association campaigned against adult education in the Forces in the Second World War. Not everyone would agree that the WEA promoted adult education to bring about social change. "From the beginning adult education took the form of three-year courses in liberal education." The WEA show an enormous range of last three-year courses in a very wide range of subjects. See, for example, the chapter entitled "The First Part of the Road to the WEA" in *Working Class Education*.

The discussion of the three last three-year courses in a very wide range of subjects. See, for example, the chapter entitled "The First Part of the Road to the WEA" in *Working Class Education*.

STIRLING SMITH  
Tutor organizer  
WEA  
11 Montreal Road  
Brighton  
East Sussex

All-round value

Sir - Michael Outlaw (TES, September 19) has every reason to be proud of his school's exam successes. It shows that the quality of teaching and opportunity to succeed has not been seriously suffered under the comprehensive system.

We, too, achieve outstanding results, and for the last year, as a whole. In 1983 the A level pass rate was 83 per cent. However, we do not measure the quality of our work by the provisions and opportunities for all pupils, and not just for the few.

The future of this country hangs in the balance, and it is up to the young generation to decide what we can develop these qualities in. If we can develop these qualities in children then perhaps the country will be valued all the more in the future.

CHRISTOPHER JOHN INCE  
Bishop Gore School  
De-la-beche, Road  
Sketty  
Cardiff

Get it in writing...

Sir - There is a serious flaw in the system for entry to universities, or at least in the way one university handles its entries.

My daughter applied for university entry this autumn, hoping to do medicine, and like many other hopefuls failed to reach the levels required, and the Universities Central Council on Admissions clearing system, hoping to get a place in a related subject. Telephone conversations with various universities at the beginning of September resulted in several offers. In particular a place on the environmental health course at Aston.

She was invited to Aston for interview, the offer was repeated at the interview on September 7, and negotiations were put under way for arrangement of the necessary sponsorship.

She considered the alternatives carefully and decided she preferred this offer. Knowing that at my own university a firm offer is regarded as binding, I then advised her to reject the UCCA to expect a Q request from Aston. Aston was informed of her choice.

Over a week later, on September 19, after she had received full details of the courses and had been offered accommodation (since she had appeared as a first year student on the departmental

list), I received a telephone call from Aston advising me that the offer had been withdrawn, at senior pro-vice-chancellor level, since a policy decision had been taken that entrants at clearing should have A level grade totals one point higher than for the original UCCA applications, and that this would be enforced even though the department concerned regarded her as a direct entry. This was in spite of the department concerned having vacancies and being entirely happy that she was suitable.

I made vigorous protestations at the highest level of the University of Aston to which I could gain access, and was told that the department concerned had exceeded its authority and therefore the offer was invalid. After further pressure I have at last (September 26) received confirmation in writing of this decision. There is no question whatever that the original offer was not made in good faith, and it is clear that the departmental admissions officer has been overruled and his decisions are not being backed by the central administration of the university.

There are a number of points of concern but the main one is that at least in the case of Aston, it is clear that even an unconditional offer should not be relied on unless it is in writing and signed by the Registrar or an equivalent official. Even that may not be sufficient for it to be regarded as legally binding.

Cardiff has had the heart and generosity to renew the offer which my daughter had refused, but had it not, the whole course of her education could have been completely disrupted, since the number of university vacancies in appropriate courses for 1983 is vanishingly small. Indeed it is still seriously affected for the Cardiff courses available to her do not lead to professional qualifications in environmental health.

It appears to me that for a university to renege on an offer is to strike at the foundation of the UCCA system and the credibility of the university concerned, and this concerns me greatly both as a university teacher and as a parent. It must also be of major concern to all schools advising candidates preparing for university entry.

At my own university I am sure that our word is our bond. In fact I am aware of at least one case in which a departmental office has made a firm offer by mistake, and then honoured its promise.

J S LITTLE  
University of Bristol  
School of Chemistry  
Cantock's Close  
Bristol

Male models

Sir - Colin Ward in his review of *Asa Briggs' A Social History of England 1750-1850* (TES, September 23) suggests that Briggs begins his history and ends in 1983, taking in everything on road from the Black Death to the Black Economy. Briggs, of course, does not do such thing, his account is highly selective. In particular, important issues that are currently being debated within historical circles - such as the role of women in history and the power relationships between the sexes - receive hardly any attention. Indeed, women scarcely appear at all until a discussion of the suffragette movement.

The issue of the invisibility of women within much so-called mainstream academic writing is not, of course, restricted only to the discipline of history. All too often in the various (educational) disciplines, men's models and men's experiences have been taken as the norm. And it is these largely unwritten assumptions that must be questioned. If we are to produce non-sexist discourses.

In a new Open University course, *Conflict and Change in Education: A Historical Introduction* (E205), first due for presentation in January 1984, we have made an attempt to integrate considerations about sex and gender into what has been more successful in some ways than others. Readers who wish to find out more about the course may contact myself or Margaret

to have questions about football. I should be very interested to know the relative a) take-up, if not a compulsory question; b) performance of boys and girls on such questions.

JENNIFER M MAXWELL  
134 Wentworth Road  
Harborne  
Birmingham

Examining sexism

Sir - I have just written, for the second year in succession, to express my concerns to the West Midlands Examination Board at the end of their examination paper. This year there were eight references to men and not a single reference to a woman or girl.

It would be possible for your paper to investigate the practices of other examination boards, at CSE and O level?

It is common in mathematics papers

Science experiment

Sir - The TES (September 23) reported initiatives to encourage more girls to study and work in science and technology. Much advice is now available for schools who wish to do likewise, in such reports, in the materials of the GIST project (Manchester Poly) and in the recently published Schools Council Programme 3 pamphlet, "Switched-off: The Science Education of Girls" (available from Longman's Educational, price £1.95), all of which describe possible strategies for tackling the problem.

We now need to monitor "strategies in action". If any teacher, school, or i.e.a. would be interested in cooperating in a project which sets out to do this, with a view to publishing selected case-studies, I should be very pleased to hear from them.

JAN HARDING  
Centre for Science and Mathematics Education  
Chelsea College  
University of London

Work preparation

Sir - In our study of industrial training we have been preparing slow learners for work. We are currently doing some work on the quality of the work itself (see Acknowledgements: Shone and Social Issues, edited by Barton and Tomlinson) but they are not the ones attributed to us by Robin Jackson. In his recent article (TES, September 23) Jackson does us a disservice in misrepresenting our work. We are not doing anything like the units and

"have not received an adequate or appropriate professional training"; indeed, they have a plethora of special education qualifications. Jackson claims we state there was no evaluation of trainees whereas a substantial part of the chapter discusses exactly the nature of the staff evaluations and student assessments.

Most seriously Jackson claims "The most disturbing finding was the complacent attitude of the staff, who, without ever questioning what they were doing, felt that they were doing it, assumed that they were providing a successful programme". What we in fact said was that studies of schemes concerned with the transition, from



Girls and IT

Sir - I would like to make a point with reference to Carolyn O'Grady's article "New survey confirms need for girls' micro scheme" (TES, September 16).

The article states that Croxson is "one of the authorities setting up special computer projects for girls"; this is not exactly correct. The Davidson Centre in Croxson is running a project funded jointly by the Microelectronics Education Programme and the Department of Industry to produce materials for an information technology course. We hope our materials will appeal to all pupils, both boys and girls.

One member of the project team, Mrs Robin Ward, has special responsibility for girls and IT, her funding is provided by the local education authority and the Equal Opportunities Commission. She visits schools to talk to staff and parents about the problems girls might face when studying subjects such as IT and computing.

Croxson has worked closely with the EOC to produce some guidelines for teachers on girls and IT, but any materials produced as part of an IT course will be intended for all pupils avoiding stereotypes. Images of any kind.

TRISHA STRONG  
Project Director  
Information Technology Unit  
Davidson Centre  
Davidson Road  
Croxson

Letters for publication should be kept as brief as possible and typed on one side of the paper only. The Editor reserves the right to cut or amend them.

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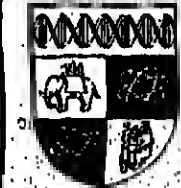
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## FEATURES

# The magnificent seven?

The glamour of the new universities has faded. Set up in the swinging sixties, the sobre seventies and austere eighties seem to have put paid to many of their innovative ideas.

Twenty years ago this month, the Robbins report recommended not only the massive expansion of higher education but also a broadening of its scope. The new universities already planned were encouraged to be different. They were to be less rigid than the older establishments, to offer new courses or to teach the old ones in new ways.

But now they seem hardly distinguishable from the others and have slipped from their position as market leaders. In Scotland too, as Alex Macleod reports (overleaf) the new universities have taken a drastic change of direction. Rick Rogers (below) visits the English seven to find out what happened.

As higher education prepares for another financial bodyblow, the pursuit of innovation seems well and truly buried. But 20 years ago they were building new universities just for that.

In those expansionist days even the University Grants Committee agreed that the existing university structure was too hidebound for any experimentation in curriculum, teaching methods or organization to have a chance of success. So, in England, seven new universities were opened between 1961 and 1965 - Sussex, York, East Anglia, Essex, Lancaster, Kent and Warwick.

Newly they represent 20 per cent of the universities in England and Wales and cater for 12 per cent of all students. But it is questionable how far today's sixth-formers realize the academic mould-breaking on which these seven were originally bent. They were not born when the universities were launched and when their early progress was eagerly, and often gratuitously, charted by the media.

In the 1960s a place at Sussex was more in demand than one at Oxbridge. Now, according to a 1982 survey of 3,000 school-leavers the old cities are back on top. Essex, Sussex and East Anglia are largely out of favour; the rest of only average interest. Employers, says another more recent survey, rate the new universities at the bottom of the pecking order when it comes to recruiting graduates.

Much of that early innovation has by now been watered down or absorbed into the higher education system as a whole. The querulous cry of many new academics today is that they don't want to be different from the others. Better, of course, but not different; being different makes you vulnerable in the present climate.

It didn't used to be like that. Garoth Williams of Lancaster University says the media ballyhoo following the opening of the first new university, Sussex, made him feel for the first time that being a university don might after all be a glamorous occupation.

So what remains of the 1960s' dream of creating new ways of learning among the new plate-glass architecture?

The decision to build was announced long before the Robbins report, in a discreet parliamentary answer in February 1958. The energetic and forward-looking UGC chairman, Sir Keith Murray, made it clear that they wanted a major expansion of higher education, that they didn't want existing universities to become too big, and that they wanted to encourage innovation.

Local consortia of businesspeople and academics put up their bids for a university. There were conditions. The new universities had to be on a single site of at least 200 acres, have a

minimum of 3,000 students, be largely residential, with local industrial links and the support of the local community.

They would have to be largely arts and social science based followed by pure and applied sciences. From the start, heavily vocational courses were proscribed - no medicine, business studies or law.

Otherwise, they could develop as they wished in terms of curriculum, course structure, organization and teaching methods - so long as they were more innovative and democratic than existing institutions. What happened next was mainly influenced by the first vice-chancellors.

Albert Sleman, Essex's first vice-chancellor, says that at the time the challenge was to be able to measure up to the existing universities as quickly as possible academically as well as doing something new.

Michael Thompson, vice-chancellor at East Anglia since 1980 after 13 years in experimental physics at Sussex, talked of "the tremendous opportunity not just for teaching a new generation of students, but also of establishing new research bases".

Each of the seven tended to pursue their own interdisciplinary ideas on the science side. But in the arts they were, according to Thompson, "looking over other people's shoulders" - mainly over Asa Briggs' and others' shoulders at Sussex.

Asa Briggs was Sussex's second vice-chancellor but in from the start as its planning pro-vice-chancellor. It was he who spoke of new maps of learning and of subject boundaries disappearing into a general Sussex culture. At Sussex, academic staff were not allowed to meet in subject groups.

The custom-made academic thread was the multi-disciplinary diet for students. The key was, and remains, flexibility in terms of subject choice and mix. The term "department" in the traditional sense was anathema. It was a reaction against the domination of the separate subject department of the 'civic' universities. Instead, academics from different disciplines would be welded together to teach and research the links between subjects; things would happen at the boundaries of subjects.

The result can be confusing. Sussex and East Anglia have interdisciplinary schools of study; Kent and Warwick equally broad faculties with subsidiary boards of studies or schools for each specific subject. Essex has five schools with 15 sub-departments. Neither York nor Lancaster has a top "faculty" layer - York has 20 small-scale boards of studies, Lancaster 42 departments.

Their significance lies more in the decision-making paths taken by each university - devolving the right to decide academic matters, enlarg-

ing the groups able to decide. Deans are elected to run schools or departments; the policy-making senates are more democratic. The idea has spread. One academic said: "You don't appreciate it now unless you'd been to the old-style civics."

In their courses, the seven set out to offer more choice, more mix and the ability to change courses with relative ease. At Lancaster, up to a third of students switch main courses. Sussex was the market leader, with York the most conventional sticking more to the single honours course.

The ability to pick and choose has put a great premium on effective counselling. Although the majority of students who go to the seven may do so because of the course flexibility they often become confused with the interdisciplinary nature of the courses. "Some are happier on a less absurdly demanding diet; they feel rushed and are made to scamp a bit," said one Sussex don.

As the rest of the system began to pick up those ideas, the new ones started to 'compromise' - departmentalizing chemistry at East Anglia, rejigging preliminary courses at Sussex, de-integrating social sciences at York. Warwick, the newest of the seven, remains the most departmentalized of them all. At Essex, Albert Sleman, feels there has been "too much fudging of subjects". He instanced Sussex, York and East Anglia as the ones with the least tendency to departmentalize but predicted that "in another 20 years there would be a move back to departments if not in name".

There is some disappointment among academics that the radical ideas have not really persisted. Some blame unrealistic expectations; some the influence of external examiners recruited from the older universities. Overall, it reflects the innate conservatism of British academics. Tony Nuttall, an English professor at Sussex, commented: "The founding fathers had far more change and development. But I don't think whether they foresaw the curiously obstinate persistence; through all the interdisciplinary activity, of traditional subjects."

Geoff Lockwood, Sussex's registrar, regards this conservatism as having been more damaging than the cuts in holding back the innovative fervour of the new universities. Similar comments came from Lancaster and Kent. Many academics, especially those who came late to the new seven, wanted the security of their subject, for how else could they be judged by their peers? Academic protectionism began to re-assert itself.

Roger Fowler, dean of East Anglia's School of English and American Studies, takes the complaint further: "There was an excessively academic, intellectual, hidebound, theoretical ideology at East Anglia which delayed the

introduction of vocational subjects."

In turn, both Lockwood and Fowler are convinced that the new universities are more capable of carrying out change more effectively. Lockwood says Sussex is still based on stream new courses and exam structure. Fowler instances the recent "transformation" of the modern languages/European history when applications went downhill.

The new universities are smaller than average in terms of students, the staff younger, and traditions less rigid. East Anglia's average age for staff is 39. All seven have fewer staff over 50 than other universities.

But this means there is little social learning - even before the speeding can, especially on the arts side, are growing together and risk creating a new generation of vocational subjects.

Three universities - Kent, Lancaster and Warwick - have relied on a collegial system. Oxbridge lines to cement the intellectual ideal by living as well as working with disciplines. The promise was to provide an intimate focus for academic and social life, a better foundation for staff-student relationships.

It has worked more for the students than staff. The students have formed a strong identity through politics, culture and sports, are more positive of responsibility available. The academics it has meant a lot of extra isolation from subject colleagues. Said Lancaster's vice-chancellor, Philip Reynolds: "Lunacy is mere to departments." It is a problem for Kent which has pursued the ideal the most vigorously, albeit within a regime of "mutual paternalism" displayed in the 1960s.

There have also been problems of funding of residential building and the provision of providing for small units. That, plus the by students for self-catering has changed original aims of college life.

For these three, the college was the core for students. The other four don't have deprived by not being collegial with their care systems of advisers (Essex and East Anglia), unprompted, declared Sussex had not. Sussex admits a reputation for "middle-class girls and working-class lads" - the latter coming from a higher-than-average intake from FE colleges. Lancaster too recruits well from the FE sector. York, however, has a substantial independent school intake. Only three keep a tally of the educational origins of their students:

One major disappointment has been the failure to change the pattern of student progression. Boris Ford, a Sussex professor of business studies, 1973, complains of "far too few pro-



East Anglia: excessively academic and hidebound



Warwick: social sciences no longer integrated

without the formal qualifications, and too few degree students from outside the middle and professional classes."

None of the universities carries out any detailed socio-economic analysis of its intake. But experience in attracting non-typical students remains peripheral. As the competition for places has intensified and for universities to attract the brightest and the best, the new seven have felt obliged to go with the tide.

Although Geoff Lockwood, Sussex's registrar, points to the revival of the concept of the "mature student" as a success for the new universities, it is now the mature student who is getting squeezed out. A senior spokesman for Lancaster, which has a high proportion of over 25s, argued: "Are you going to turn away students with damn good A-levels for a mature student?"

In the 1960s, Lancaster was the first university to agree a credit-transfer arrangement with the Open University and is developing an Open College with local input. Kent was the first to offer part-time degrees, which attract most of its mature students, and this move is being followed by the others.

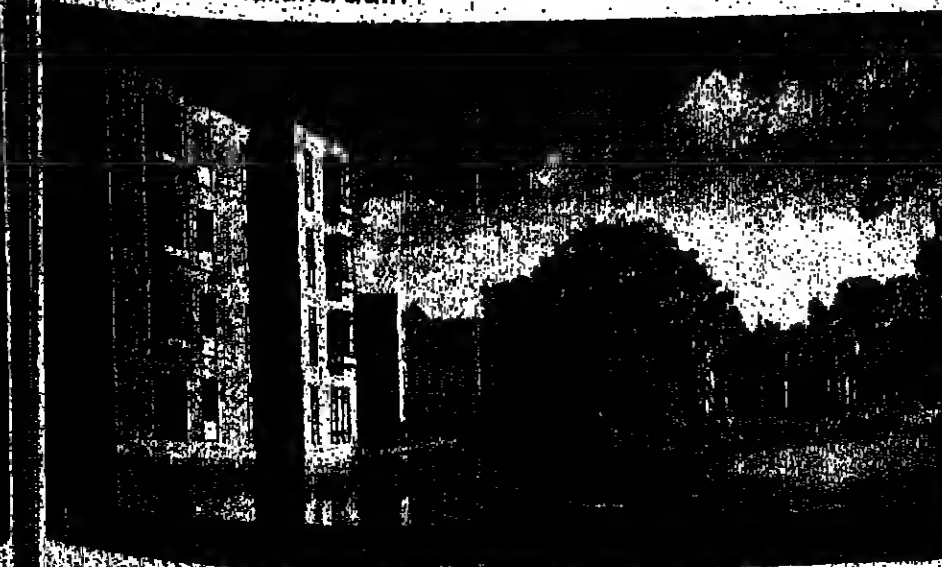
University	1982 (over 25)
East Anglia	14.2 (over 25)
Essex	13.0
Warwick	13.0 (over 21)
Sussex	12.9 (over 21)
York	10.7
Lancaster	2.8
Kent	1.0

A survey of school leavers in the mid-1970s by the Society for Research into Higher Education found that the new universities attracted a much more diverse range of students than the old ones. Very close to Oxbridge. Not surprisingly, many comparisons are made with Oxbridge. East Anglia was known as St John's in the Fens, Sussex as Belling in the Sea.

One senior academic at East Anglia described the student population as "slightly upper middle class" and noted a loss of panache with the influx of more lower middle-class students. Sussex claimed to have retained its "panache", while Kent, unprompted, declared Sussex had not. Sussex admits a reputation for "middle-class girls and working-class lads" - the latter coming from a higher-than-average intake from FE colleges. Lancaster too recruits well from the FE sector. York, however, has a substantial independent school intake. Only three keep a tally of the educational origins of their students:

University	Essex	York	Warwick	England & Wales
Independent	40.1	28.5	24.8	22.1
Dependent	11.4	23.9	13.8	21.1
Unknown	23.9	8.9	19.2	12.0

York: conventional and dull?



## FEATURES



Sussex: retaining the academic trappings

If it calms some heads' fears, a survey of newspaper sales to Lancaster students between 1972 and 1982 shows that sales of *The Guardian* dropped from 38 per cent to 26 per cent and *Morning Star* from 5 to 1 per cent; whereas sales of the *Daily Mail* rose from 5 to 15 per cent and the *Daily Telegraph* from 7 to 12 per cent.

Research money is one clear measure of success revealing the new universities capable of competing with the rest on their own terms. Underfunded for several years in the 1960s and without the expensive research areas of medicine and nuclear physics, research has now taken off. Sussex derives 20 per cent of its income from research funds - second only to Oxford. In terms of research income per science academic at university, Warwick and Sussex come top with York fifth, Essex is third for engineering sciences and Kent sixth for biological sciences.

Less successful are their graduate employment rates. All seven criticize the *Financial Times* league tables - Essex came top and York and Sussex bottom. York noted a 10 per cent drop in applications after its publication. With the Lancaster University research (see TES, September 16) showing that subject and sex mix account for 70 per cent of variations in graduate employment rates, the new universities fare better. The new universities' subject mix remains heavily arts and non-vocational oriented.

The slings of the seven universities still cause controversy. Former Labour high education minister, Gerry Fowler, commented recently: "Who in their right mind would sit seven universities in those provincial towns today?"

It is not so fanciful. They did fill gaps in the geographical map of higher education, such as Lancaster and Norwich. Kent and Lancaster have become major employers in Canterbury and Lancaster. Valuable industrial links have been made and research geared to regional interests.

Local communities have additional cultural and educational opportunities, although these have not been exploited as fully as they could be. There is also a tendency for academics to point to the acres of parkland for the locals to use for country walks - uncomfortably like the owners of stately homes.

The potential for urban renewal was set against the ability to expand easily and on a single site. It was also difficult to acquire the UGC criterion of 200 acres in the middle of the towns. The universities themselves have mixed feelings about their location. But they seem no more nor less successful than other universities, including those based in cities, at effective "town-gown" integration.

The new universities were conceived in the 1950s, and were boarded, for good and ill, by

1960s' ideas and trends. Despite generous initial funding, cutbacks in plans were already being ordered by 1967. There was considerably greater expansion in existing universities plus the development of the polytechnics and the technological universities following the 1963 Robbins report.

Infiltrating the traditional sector with innovation became that much harder. But if the new universities seem unremarkable now it is precisely because others have copied them.

By the early 1970s, all seven had been stopped in their expansionist tracks. Warwick was originally seen as a British equivalent of the American MIT with a 10,000 intake by 1980 rising to 20,000.

Subsequent developments have been slow and hard-fought. Lancaster went ahead with engineering science against UGC wishes. It added a law school just before the 1975 freeze and claims one of the largest business schools in the country. It also labels as academic breakthroughs its history and religious studies courses.

Essex, concentrating on the social sciences, highlights its linking of maths with a natural and a social science. Kent and East Anglia have both seen computing science as a "natural subject" for a new university as it has no restrictive academic traditions.

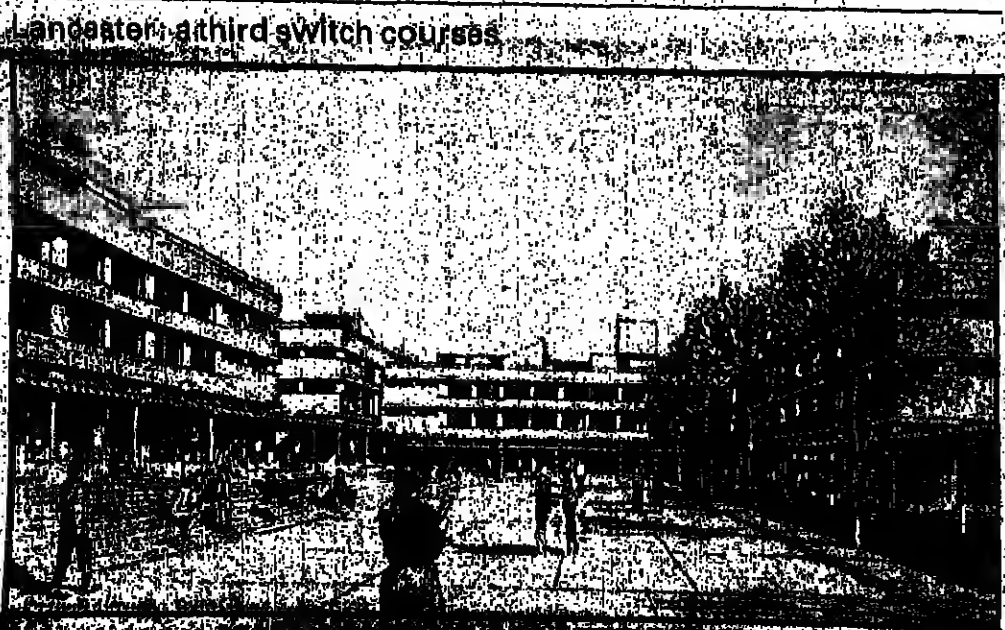
East Anglia also points to its development of environmental sciences, its fine arts and music school, and its creative writing, fame around Malcolm Bradbury. Warwick boasts the largest engineering department of all the new universities, and the success of its biological sciences department - again launched without UGC blessing. York too has developed successful biological sciences and biochemistry schools. Sussex, originally famed for its unique arts courses, now pushes the achievements of its science courses with its elench of FRSS.

To feel safe in the years ahead, the new universities are going to have to develop further their science and other vocational courses. Though no longer in the same club, the new universities are faced with the same problems. Despite the trimming, they do remain different. Tony Nuttall extravagantly described it as "education for the real world: having curiously shaped objects thrown at you from unexpected directions."

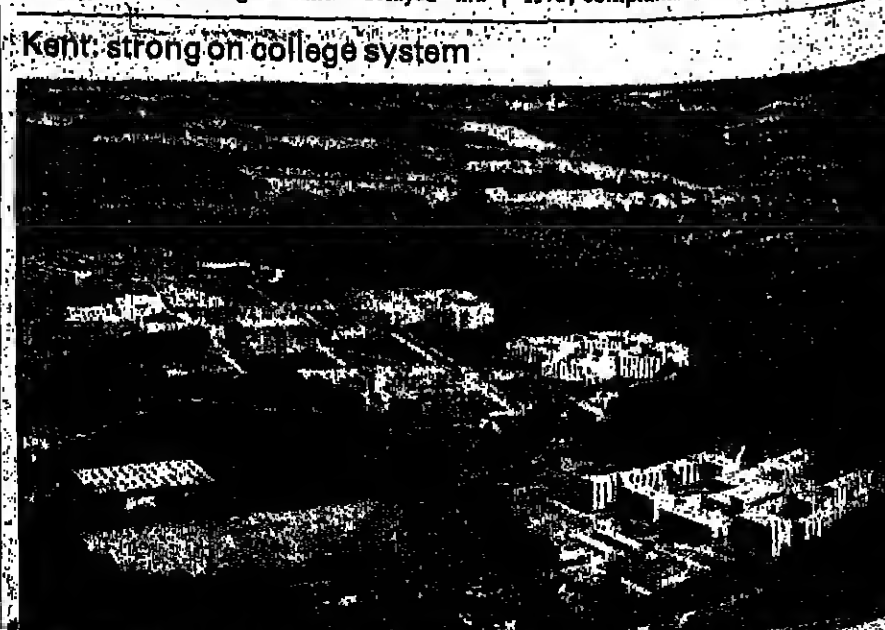
Boris Ford was more circumspect: "My own view is that these differences reside in the cultures of the places, in the relations between staff and students and between the various specialists and specialisms. At most of them the staff have far greater opportunities still to innovate, to try out new courses and styles of teaching and even examining. They may not take advantage of these opportunities, but that is another question."



Essex: student strike meeting 1968



Lancaster: a third switch courses



Kent: strong on college system



## FEATURES

# Scotland the brave

After a near massacre by the UGC in '81 and with their arts courses being suppressed, the new Scottish universities struggle to put on a brave face, Alex Macleod reports.

The cliché that Scottish education is "the best in the world" is beloved to Scots who have never set foot in an educational establishment since they left school. Nevertheless they could afford to feel a little sanctimonious in the mid-1960s when a new university seemed to be sprouting up every year.

Strathclyde opened for business in 1964. Heriot-Watt in Edinburgh followed in 1966 and the long-established college in Dundee received its Royal Charter and was able to start awarding degrees in its own right.

These were heady post-Robbins days. Innovation was the watchword and more than a few academics believed they were involved in a Scottish university revolution. It seemed a good idea at the time.

The older Scottish universities, Aberdeen, Glasgow, Edinburgh and St Andrews watched enviously as their younger brothers attracted most of the attention; suddenly their ancient portals and rituals did not appear quite so comforting. Was there something after all in Heriot-Watt's wide front of technology?

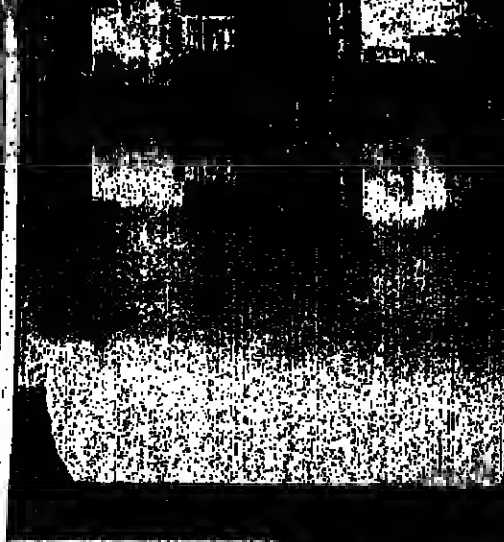
But today, it is the youngsters which are feeling the chill winds of self-doubt. They are only now recovering from the blood-letting of the University Grants Committee's 1981 cuts.

As Louis McGougan, Strathclyde University bursar, puts it: "We all had to have a plan for survival before we could start thinking about a plan for development."

Nowhere in Scotland was that more true than at Stirling University. It suffered a 25 per cent cut in funding in 1981 and there was widespread speculation that this was the overture to closure.

Certainly it has strong claims to be the most beautiful campus in Britain, standing on a saddle between the west slopes of the Ochil Hills and the woods of Abbey Craig. The university buildings nestle comfortably, hardly disturbing the scenic beauty.

But universities were not judged by scenery in 1981. Stirling was determined not to be just another university and had been given, in the 1960s, an open invitation to innovate, to be quite different. Arts and social sciences were to be its main strength.



Stirling: no prizes for beautiful campus

Stirling innovated like there was no tomorrow. The traditional three-term Scottish academic year was frowned upon and in came two 15-week American style semesters. Most students lived on the campus which had its own supermarket, post office and bus service. The campus became a village and students could combine the study of English Literature with chemistry if they so wished.

Convention was out and cutting across academic barriers was in. Examinations were replaced by continuous assessment in some departments, a concept which made some of Scotland's more entrenched academics shudder.

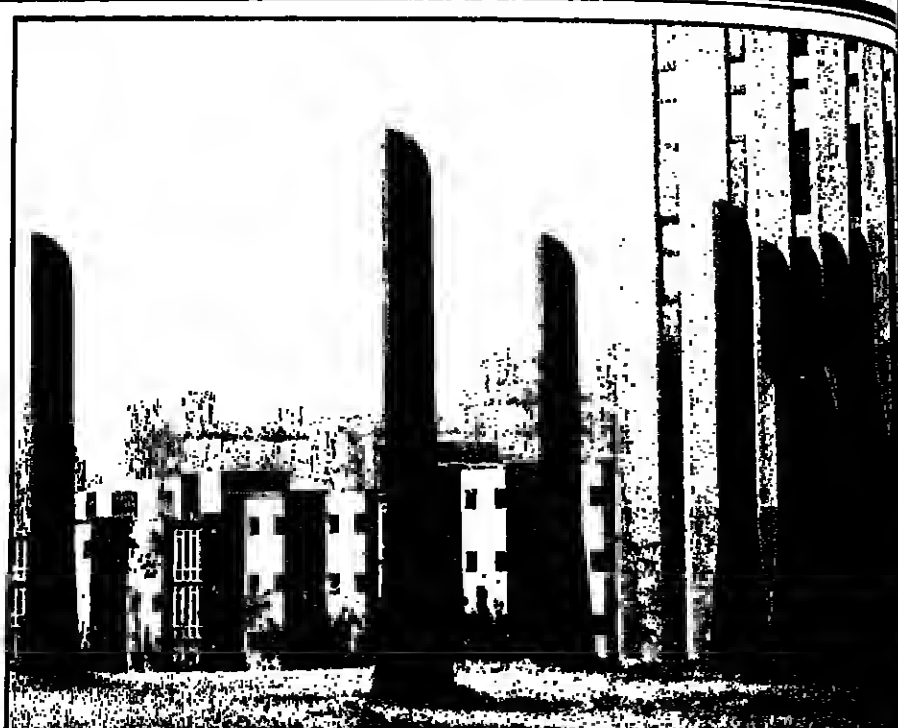
Then, one day in 1972, Stirling suffered a devastating blow. National newspapers were full of pictures showing a drunken Stirling student waving a bottle of wine at the Queen. Stirling changed overnight from being "trendy" to being "outrageous."

As James Traynor, the Deputy Principal, admits: "Those three hours of the Queen's visit made most people forget all the developments which had gone before and it came at a time when student applications were soaring."

That was bad but Stirling continued on its way, turning out sociologists, linguists and economists. Then, in 1981, the UGC pulled the plug and the university was brisily told not to mess about with such subjects - physical science was to be the priority. As more than a few academics at Stirling tried to point out, this message was a bit late in the day arriving.

Student numbers were to be cut to just over the viability level of 2,000 and even now, the university is trying desperately to shift the emphasis to please the UGC. An honours degree in physics is now on offer and there is an air at the university of trying to give a good impression. A major Japanese computer company is in the process of setting up a factory on the campus and new courses such as information technology have been created. Staff are being re-trained to teach subjects other than their own and James Traynor feels morale is climbing again at last.

"We are very encouraged by the student application rate (10,000 this year for 600 places) and we have made judicious savings. Research money is coming in."



Strathclyde: encouraged to think big

But Professor Traynor and his colleagues are genuinely bewildered as to why Stirling was so savagely singled out two years ago. "We never received any satisfactory answers," he says.

Recently, the university received another visit from the main UGC committee. Senior academics were told there was no possibility of substantial growth in the near future. "They did stress that cuts were not intended to imply any value judgment but were part of a package to give adequate provision nationally," Professor Traynor adds.

And it is the word "adequate" that sums up Stirling's predicament. It was not a word found in the vocabulary of academics in the immediate post-Robbins years. Stirling eschewed simple "adequacy", preferring variety, change and abundance. If the university had been a little more traditional, perhaps the UGC would have found a bit more money.

Strathclyde, on the other hand, was innovative in the way the UGC wanted. It is perceived by most Scots as the technological university in Scotland, yet in the last two years 100 of its academics have been lost through early retirement.

Granted its Royal Charter in 1964, Strathclyde is the product of a merger between Royal College and Science and Technology and the Scottish College of Commerce. Strathclyde can be fairly said to have fulfilled the concept of "useful learning" expressed in its charter but Louis McGougan admits there have been disappointments.

Originally, the plan was to have a ratio of two science students to every one arts student but, 19 years later, 42 per cent of its students are taking arts courses.

"We thought that together with Glasgow University, this city could offer 20,000 student places," Louis McGougan says. "At Strathclyde, we were encouraged to think in terms of 9,000 full-time students", but that hope has not been fulfilled and it is doubtful if it will be by the end of the decade. This pleasant, nine-to-five university, sited in the centre of Glasgow has at the moment under 6,000 full-time undergraduates.

Its strength in engineering and business studies were praised by the UGC but the university

still suffered a 15 per cent cut.

McGougan holds that the science/arts ratio is misleading, because of what he calls cross-fertilization between disciplines. "We part of the city, part of industry and we have always been deeply into commerce... We have a centre for industrial innovation. We have the largest business school in Europe and 38 search contracts with industry, commerce and EEC."

The cuts of '81 knocked the stuffing out of people in terms of morale. "What people lost the loss of autonomy... the thought of servants controlling what should be studied. He admits the university will now have to give a preponderance of science, engineering and technology students. And the implication is there will be little room at Strathclyde for subjects which the UGC and the Government find unnecessary.

The same goes for Heriot-Watt which has the additional difficulties of being on two islands six miles out of Edinburgh and the heart of the city.

With almost 3,000 undergraduates, Heriot-Watt was badly hit by the UGC cuts - law and pharmacy in particular. However, the forefront of research into offshore oil drilling and is fulfilling the technological role Robbins gave the university. James Traynor, the principal, says: "Our students were to be a technological university but it includes the idea of a liberal education as well."

Horiot-Watt developed subjects like physics and a department of languages but student numbers now constrain that. The studios. At one stage the university was planning for 10,000 students. "We were encouraged to think big. Then we were told to be realistic," Professor Johnston recalls.

He argues that Robbins did not expect universities for their own sake. It was to be an attempt to create a more diversified system. "Robbins was not inflexible. It was sensible in trying to go for that diversity. In the end, the resources were not available to force the university system to do what was done in a very crude way in 1981."



Heriot-Watt: planning for fewer students

## Chequebook reporting

ALISON CHILD

When the "Working Party on Reports" decided to alter the system at the large comprehensive where I work, I breathed a sigh of relief. No longer would one have to suffer the ignominy of making a mistake on the "one sheet" system, then have to spend many tedious and embarrassing moments sloping around school during the periods of staff to rewrite their comments. Instead, with the new "chequebook system", one could take one's own slips home, write them in total privacy, make as many errors as one wished and amend them *ad nauseum*. One could then stroll into the staffroom and casually toss a set of perfect, dictionary checked, neatly written specimens at the form teachers. Life must surely become easier!

Little did I know! Problems arose at the next fourth-year meeting. Questions were asked. People wondered why this new system had been introduced - what was the matter with the old one? Several objections were raised. Members of the mathematics department were more perturbed. They now had to fill 72cm<sup>2</sup> of paper instead of 45cm<sup>2</sup> under the old system - they didn't feel that they knew enough words to accommodate this space. Another protest concerned the necessity for each "cheque" to be headed with the pupil's name and form; previously this task had been performed by the group tutor.

"How on earth are we supposed to know how to spell their names?" demanded an artist who spends some of his time teaching.

"Look at the official form lists", suggested the head of fourth year. We should have realized then that most of the so-called "official" form lists would be wrong. Did you know that there are at least five ways to spell Daniel and the variations on Lindsey are limitless, not to mention Gail, Stephen and Carolyn?

However, I wrote all my own English reports on the cute little cheques, placed them in the appropriate form boxes, waited for the deadlino then, with hope in my heart, carried my own form box home, praying that 4A's subject teachers had completed their reports on time. Most had done. I spent the first half of the evening writing 368 separate reports into 31 individual piles, in alphabetical order, of course. I then went out to the canteen to purchase six differently coloured pens - three shades of blue, green and red.



Alison Child teaches at Lytham St Anne's High School.

round the statistical mean, the number of marks separating grade B from grade D is often ridiculously small. In 1982, 25 of the 34 JMB A-level examinations with large entries, the number of marks separating B from D ranged from 6 per cent down to 34 per cent, and in one subject, chemistry syllabus A, the difference between B and D was under 3 per cent.

Clearly this narrowing of grade C to the point of extinction is not uncommon, otherwise the JMB would not so courageously have brought it to public attention. It must occur in unknown numbers of subjects every year and under all boards. It arises from lack of skill in the setting or marking of examinations, which allows bunching of marks rather than a reasonable spread.

two of black and one of turquoise in an attempt to correct mistakes, add commas etc., not to mention a phial of liquid paper to delete unnecessary apostrophes from plurals, double 't's from commitment and double 'c's from necessity.

My attempts with the six pens, many reports had to be returned. John's lack of preparedness did not help in the examination. "I told him to use 'preparation'." Another beauty known fondly to his lower sixth as "Hitler", Lindsey's (spelt wrongly) lack of absences have not added her progress. "Perhaps she ought to stay away more often!"

The head of English was particularly anxious to present contributions which were absolutely correct. I witnessed his attempts to spell "Heidi" in the first, he placed the "i" before the "e", (in accordance with the rule in *Riddow* 2); in the second, he spelt her surname wrongly. In the third, he confused her effort and attainment grades; in the fourth, he called her Haze; but by the fifth attempt, he finally got her name right and forgot what he wanted to say, so he wrote "Satisfactory year's work" instead.

Nick, our probationary English teacher, was desperate to make a good impression with his first set of reports. He sat clutching his dictionary, but still managed to spell "grammar" as "grammer" on eight slips. I wondered vaguely if Nick could cope with "comprehensive" or even "high".

I had to question a geography teacher about some of his grades. On one report, the exam percentage read "3" and so did the effort grade. Surely, I thought, he has made a mistake. But no, Julia really had scored 3 per cent and the teacher's comment, "Julie must set her sights a little higher", was obviously correct.

Staff who only see their pupils once a week find it virtually impossible to get to know them all. "Kevin has made many valuable contributions to class discussions", "Kevin must listen more carefully during lessons". I know Kevin did have a very loud voice, but not loud enough to be heard in Lancashire several thousands miles from South Africa, where he has lived since February!

When I eventually issued my set of well-stapled, sewn-in, de-aerated, triple-punctured, tea-stained chequebooks, the response from 4A was tepid.

"What's this, Miss?"

"It's your report, Nicole", I replied wearily. "It's a new system."

"Huh! What was the matter with the old one?"

A very good question.

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This state of affairs has two consequences. The first is the unjustified misery of thousands of A-level candidates, yet who reasonably ex-

## Work sharing

ALEC PARLEY

Jack Baker ("Talkback" September 16) makes some astute observations on the Toronto school system, although a longer stay might have given him cause to question his statement that "they are highly regarded by employers and community alike". Although the salary scale theoretically ranges from £8,000 to £20,000, more than 75 per cent of an aging teaching staff are at the maximum end of the scale and a substantial proportion of the community - particularly the better-off - has yet to be convinced that most teachers are not underworked and overpaid.

The seniority system has indeed produced the stagnation described by Mr Baker as well as a general malaise about the lack of opportunity for promotion. This seniority system has also dictated that teachers will remain with one board of education (the equivalent of the local authority in Britain) because any movement to another area within the province of Ontario would involve a loss in seniority and increase the possibility of redundancy as rolls continue to fall.

There is increasing concern that innovative techniques and enthusiasm for extracurricular activities, which traditionally would have come from new entries to the profession, are declining. Despite the profusion of professional development courses and an apparently healthy involvement in them by many teachers, a cynic sees much of this participation as a desperate attempt to become over-qualified

for the few promotions which do occur.

This lack of staff mobility coupled with the need to retain or give jobs to as many young teachers as possible has produced an extremely popular scheme in several parts of Ontario - the "Four over Five Plan".

A teacher who applies and is accepted on the plan agrees to accept 80 per cent of his/her normal gross salary for a five-year period, and does not have to work during one of those years. All non-salary benefits are paid fully by the board of education. Boards attempt to find out where falling rolls will affect specific schools or subject areas and will only accept those teachers into the plan who have sufficient seniority to avoid possible redundancy.

The scheme has many advantages. For the teacher on the plan it provides at the very minimum a sense of freedom and often the opportunity to pursue activities in the outside world. The promise of such a break can rekindle enthusiasm for the classroom and pay dividends beyond the one-year leave period. For the teacher threatened with redundancy or the new graduate attempting to enter the profession, there is now new hope.

For the board of education there is a cost-saving way of providing many sabbaticals for senior staff, continued jobs for younger and lower paid employees and even a chance to engage that near extinct species - the new teacher. In effect £20,000 salaries have been replaced by salaries of perhaps half that sum.

In real terms the teacher on the plan will often receive about 86 per cent of his/her net pay because of entry into a lower tax bracket. Checks made with the various governments as to possible effects on pension and income tax have revealed no impediments, as long as the plan does not infringe on the last

seven years of teaching. The scheme has been wholeheartedly adopted in many parts of Ontario since its introduction in the Thunder Bay region about eight years ago.

Can the plan be adopted, or even adapted, here? There appears to be a similar lack of mobility and lack of promotion prospects although less desperation about teacher redundancies. It would also appear that some new teachers are finding jobs. There is little doubt that the salary differences between Canada and British would make it much more difficult for the British teacher who is raising a family on one income, to enter such a plan.

However, there are many families where both husband and wife work as teachers and their reduced combined salaries would surely not involve undue hardship. It is also true that, unlike Canada, teachers may freely move between one authority and another, thus making a five-year commitment difficult to honour. Nevertheless it would appear that this mobility has been greatly reduced at the present time and may continue to be restricted in the near future as public spending cuts continue.

During a period of depression (both economic and mental) within education, where local authorities are being forced to combine cost-cutting with attention to increasing pupil disquiet and teacher "burnout", and when "work-sharing" is mooted as inevitable, does not the "Four over Five Plan" provide a step in the right direction? Which large, urban local authority would like to be the first to create jobs, provide sabbaticals and save money at the same time?

Alec Parley is assistant head of geography at Central Technical School, Toronto and currently spending a year in England as part of the Four over Five Plan.

## Special teachers

JEAN HULL

Patricia Potts ("Talkback" 723, September 16) has misinterpreted or misinterpreted Robb's article about teacher training for special needs.

However, the article neatly highlights some of the confusion that exists about such courses, not only among students and teachers but teacher educators as well. These may well increase if the issues are not clearly outlined and debated as suggested by Professor Segal in the same issue.

The initial teacher training courses which Ms Potts attacks as segregationist and elitist aim to produce teachers for special schools as they presently exist - not "remedial" teachers. Once this is realized some of Ms Potts' misapprehensions can be clarified. For instance, her criticism of "working with a special group of children" and crystallizing them into medical categories divorced from an educational setting is a misunderstanding of the time constraints in training and the nature of a handicap.

A cerebral palsy child has an irreversible lifetime condition and that sense his needs are indeed "solidly definable" and "indisputable" and have little to do with his social origins.

Also, I sincerely trust her statement that "it is a common fault of all types of teacher training courses that information and discussion of the educational

course it saves the university administrators a lot of time.

The cynicism arises because, as the GCE boards are university committees, the admissions tutors must know that B and D are often separated by very few marks, so that reliance on grades alone for admission is indefensible. Yet they persist in behaving as if this were not so and, in consequence, reasonably able candidates who drop a tiny number of marks are prevented from going to the university of their choice and, in some cases, any university.

What can be done? In a period when the number of applicants far exceeds the number of university places, it would not be feasible to persuade the universities to change their approach. In any case, it would be better in the long term if the GCE boards could be persuaded, by public opinion or government pressure, to grade A level more rationally.

system as a whole are notably absent" - is not universally true. I suspect that mine is not the only course which lays considerable emphasis on studying a wide range of special and ordinary schools and of visiting them in a number of i.e.s. with subsequent critical discussions.

Once the Warnock notion of a continuum of need is accepted then it has to be assimilated and understood. Yes, of course the needs of the 18 per cent in ordinary schools must be included and of teachers must accept a share of their responsibility. The message that those of us engaged in teacher education are constantly expounding on all courses.

Yes, of course the integration of handicapped children is desirable where feasible (and let's not get diverted by the arguments on criteria). The implications for teacher training at several levels (initial, post experience and advanced) are profound and complex.

But, as Mary Warnock herself said: "There will always be a need for special schools" - as a part of the continuum of provision. There will always be some children who, given the best will in the world, can never be integrated into mainstream schools if their needs are to be met. Many severely physically and mentally handicapped can only approach their potential with the help of highly skilled specialist teachers, and it is the training of these teachers that is under debate and which Dr Jackson attempts to defend.

Here, I think, lies the basis of Ms Potts' misunderstanding, where she labels pupils with learning difficulties as "failures". No teacher of worth of the mentally or physically handicapped

ped that I have met in 20 years' teaching has ever regarded their pupils as "failures". However the term is frequently heard in mainstream of children with a variety of learning and behavioural difficulties.

It is in this context that Dr Jackson makes his point that "intelligence matters" with regard to his students. All, except the most naive, of us are aware of the attitude found, not only in teachers, but among teachers, that to teach in a secondary school "one has to be cleverer" than a primary teacher and by extension, that the best schools need over-qualified teachers. "In the trade" are well aware that often the best teachers are to be found teaching the least able pupils as it is here where real teaching skills are paramount.

If we are not to have initial training for special education then, where and when is specialized teaching training to take place?

Yet even more critical is the question that if DES policy is to move towards age and subject specific training and qualifications then where does special education teacher training fit into this future pattern?

Indeed the whole area of planning for special needs and the preparation of teachers to meet these needs is alive with debate and controversy and Ms Potts could do worse than join the debate via the Association of Special Education Tutors which is engaged in dialogue with the DES and ACSET on all aspects of teacher education in special education.

Jean Hull is senior lecturer in special education at Bretton Hall College, Wakefield and an executive member of ASET.

The solution is, in fact, simple. The boards should be required to publish their grade boundaries in percentages for each examination and make them available to centres at the same time as the examination results. Teachers and candidates would then be able to see how the grades were derived from marks in each subject and, in particular, whether B and D were separated by a reasonable number of marks.

If this were done, the boards would quickly require some of their chief examiners to change the way in which their papers are set and/or marked, so as to achieve a sensible spread of marks. This might well bring about a rapid improvement in the methods of examining. It would also make admission to university on grades alone, if not desirable, at least defensible.

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# TWO NATIONS

Colin Ward on dirt, disease and epidemics in the nineteenth century

Endangered Lives: Public Health in Victorian Britain. By Anthony S Wohl.  
Dent £17.50. 0 460 04242 1.

Now that nostalgia for those imaginary good old days is a major British industry and a continual ingredient in everything from Christmas cards to television commercials, it is salutary to be reminded every so often of the facts of Victorian life and death. Professor Wohl, whose earlier books of social history include *The Eternal Slum* and *The Victorian Family*, here turns to the whole range of public health issues: dirt, disease, epidemics, infant mortality, malnutrition, industrial illnesses, atmospheric and river pollution, water supply, sewerage and housing.

These mundane topics affected every aspect of nineteenth century life, and penetrated its most intimate details. Disraeli's remark that the privileged and the people formed two nations was never more strikingly illustrated than in this handsome and authoritative book whose author notes that "Clothing, physique, accents, smell, breathing, bone structure, posture, skin colouring - everything conspired to accentuate the differences, to exaggerate the gulf between classes and to make contact and understanding more difficult."

This grim truth is exemplified from a very wide and admirably handled range of sources, spreading from the evidence given to the series of royal commissions and select committees of the period, to the testimony and reminiscences gathered from working class autobiographies, which combine to shatter many a silly assumption about Victorian values. Just in the question of foodstuffs and groceries, for instance, Wohl reminds us that "to look back nostalgically and assume that the bread which formed the staff of life was home-baked, or, if bought, was wholesome and nutritious, is romantic nonsense. By the 1840s home baking had died out among the rural poor; in the small

tenements of the urban poor, unequipped as these were with ovens, it never existed."

Half the bread examined by a pioneer investigator, Dr Hassall, in 1872 was found to contain considerable quantities of alum, which while not poisonous, "by inhibiting the digestion could lower the nutritional value of other foods, and half the gin sampled by the Local Government Board in 1877, had copper added to it to heighten the colour, as did butter, while it almost goes without saying that the Board found that a quarter of the milk had water and/or chalk added. More exotic foods had more lethal additives and diluents: the list reads, as the author says, "like the stack list of some mad and malevolent chemist."

Earlier historians have been inclined to see the general attitude of Victorian legislators to public health issues as a kind of callous indifference combined with the pursuit of profit, but Wohl tends to congratulate them in retrospect on the progress that they managed to achieve in circumstances of pell-mell urban growth on a scale which no human society had previously seen.

Laissez-faire economic attitudes and the belief that to interfere with the workings of a free market was to invite disaster, certainly affected the progress of sanitary reform, as did the insistence on local autonomy and the sanctity of low local rates. But, Wohl suggests, the Victorians were in the situation of pioneers, faced with problems of a form and magnitude which were completely new, and for which medical and sanitary science had not hitherto provided answers.

The famous work of Dr William Budd and Dr John Snow in 1849, on the causes of typhus, typhoid and cholera, is a celebrated example of the new application of scientific method. "In 1854 Snow was given the opportunity to prove his theories when he dramatically and conclusively traced cholera deaths to houses supplied by the suspect water of the Southwark and Vauxhall water company. When he managed to persuade



the local authorities to lock the handle of a pump in Broad Street in Soho (a compact area where over 50 people a day were dying of cholera) the deaths there came to a sudden halt, and although it was not until 1883 that Koch succeeded in isolating the cholera bacillus, Snow's work marked a triumph for the young science of epidemiology."

Wohl is full of admiration for the diligence of the great sanitary reformers, James Kay, John Simon and of course, Edwin Chadwick, whose *Report on the Sanitary Condition of the Labouring Population of Great Britain*, in which, drawing upon the evidence supplied by a thousand Poor Law medical officers, Chadwick "skillfully wove

the most lurid details and evocative descriptions of demoralising statistics and damming examples of insanitary conditions of protest literature, produced work of epic proportions.

Some of these phrases could be applied to a present book, though it is not based on scientific evidence and does not generalize from the instances. The author is concerned to present a picture of an age, its problems and its attempts with varying degrees of success, to cope with them. His book is the culmination of many years work on the issues faced by the Victorians, skilfully woven into an absorbing, and evocative narrative.

## Buoyant despite the cuts

David Whitehead makes a critical survey of the A level economics textbooks currently on offer

Longman are more coy, but it undoubtedly sells enormously well, not only to schools but also to the many economics students in further education and studying privately. As the market leader, it provides good value for money, and probably reflects its author's highly successful teaching style. However, most teachers find it rather elementary for the able A level candidate. After a while, such a text gains its own momentum, and teachers automatically buy new editions when they become available.

Texts like Lipsey (Weidenfeld and Nicolson) and Samuelson (McGraw Hill) are normally earmarked for distribution to the brightest and keenest students, but class sets would be prohibitively expensive. Another course book which has a solid following is Nobbs' *Advanced Level Economics* (McGraw Hill) which appears to be holding its own in a very competitive market.

*Understanding Economics* (Clarendon) the only text written by a committee of teachers (for the Manchester Economics Project of the early 1970s) continues to attract a certain segment of the market, and Allport and Stewart (CUP) is fine for those who like macroeconomics to precede microeconomics. Heald and Robinson's recent *Basic Economics* (Holt, Rinehart and Winston) is a more up-to-date text, and is accompanied by an

extremely valuable teachers' handbook - but the text itself is distinctly *déjà vu*. Another relative newcomer is Livesey's *A Textbook of Economics*. Its publisher (Polytech) has distributed large numbers of free copies of the text on demand to teachers, and this positive policy appears to have resulted in reasonable sales of class sets. It is certainly one of the best texts on the market, especially for its refreshingly iconoclastic exposition, and for its incorporation of data response questions. Teachers who bemoan its brief treatment of the theory of the firm have not seen the second edition.

From discussions with a number of publishers, I got the impression that while the cutbacks in educational budgets have affected schools generally, the sales of economics texts are remarkably buoyant. One reason for this may be that much economics is taught outside schools, where the cuts have not been so severe. Perhaps economics heads of departments are more effective than some other teachers in bargaining for larger allowances. One teacher described his budget as based on capitulation tempered by tradition. Also, economics is still a growing market in terms of examination entries. Publishers have become noticeably more entrepreneurial in the last two or three years in attempting to obtain the services of

new authors, and most educational publishers who enter the economics market try to have a standard textbook in their lists. Further, teachers may have waited several years before replacing sets of texts, because of cuts in budgets. In recently the texts have become so out-of-date that new sets have got to be ordered.

Another question concerns whether the influence on teachers' purchases. Here publishers disagree. Several sardonically suggest that the brilliant review is the kiss of death, while others think that a glowing review in a leading journal will result in a text which goes on to become best-seller. It is a good publicity, and at least one publisher that he considers reviews of primary importance in promoting books, even ahead of "What the Press reviews may be crucial for a new book to author - but they won't make any difference to the sales of an established text which is reviewed in a new edition appears.

While some teachers I know are happy with the present combination of texts, it appears that the use of a textbook as a course manual is becoming uncommon. Typically, the student is charged with at least two readers, probably a standard theory text combined with say Fray and Coppard (Weidenfeld and Nicolson), Stanbury's *Microeconomics* (Longman) is often issued in the form of a book. An equivalent text on microeconomics would be well received. Frequently students are issued with Donaldson's Penguin paperback, a thoroughly readable and challenging.

The economics textbook market is likely to be stirred up in the next year or so by the publication of at least four new texts: one by an established author, one by a new writer, and others by authors from texts of American and Australian origin. It is a pity that publishers so rarely appreciate the good market in the UK. The best text on comparative economic systems is published by Pitman (Australia), and Professor Robinson's American texts for the Economics Society (Addison Wesley) especially that on the World Economies, should be more easily available.

## Literary competition

Competition No 43. Report by Charybdis

Flacker

Sorry about the shorter time than usual allowed for this competition: some regular entrants were probably still only maturing their verses when they found that the closing date had come and gone.

Seeking a change from the sardonic view of men and events that is one of the staples of the literary competition, I asked for "verse expressive of admiration and affection for any author born after 1800". I must take the word of E J Elwin (Ella Wheeler Wilcox), Tam Sampson (Barbara Cartland), Maud Gracechurch (Wilhelmina Stutch celebrated in the manner of Patience Strong) that the admiration they feel for these splendid and egotistic ladies is as sincere as the affection anyway their entries provided some agreeable chuckles.

Unfortunately, with quite a few of the entries, the degree of homage was not matched by an equal degree of skill in its presentation: I echoed every word of the sentiment in the several hymns of praise to Gerard Manley Hopkins: but seeking to celebrate his genius in his own unique sprung-rhythmic style proved, alas, too overbold an undertaking: I have yet to come across, among numerous pastiches of Hopkins, a really convincing one.

Competitors were, on the whole, refreshingly unfashionable in their choices: it is a long time since I heard praise of George R Sims (Robin Chase) or George MacDonald (O Banfield). Fiona Pitt-Kethley revived a grandparent, Victor Pitt-Kethley, a prolific progenitor of ripping yarns for boys under a host of pseudonyms. D C Alexander would have won a prize for his lively verses to Isaac Asimov if all his lines had carried the conviction of his best ones. Similarly, E O Parrott with his Lewis Carroll and Bill Greenwell with his Malcolm Lowry.

After the usual head-scratching and repeated recitations, I am awarding £9.00 to P W R Foot for his Chester-ton; to Paul Griffin for his Flecker; and the lower sum of £7 to George Moor who slightly breached the rules with his *Clarke* (b. 1798). The last sent two poems on the author of almost equal merit: this one seemed to have just the edge. £5.00 to Fred Sedgwick (who must send his address if he wants to receive his prize) for his Auden.

Chester-ton

I knew the lins wherein you sat  
Withwordstick, cloak and floppy hat;  
Where'er you spoke I followed meekly,  
I joined your league and sang your weekly.

And by your movement set my clocks -  
O master of the paradox!  
You made your stand at Notting Hill  
And when I'm there I find you still.  
The pen your sword that all might see  
That men should dance with liberty,  
And when too soon you left the scene  
To travel home via Kensal Green  
I like to think 'twas Father Brown  
Who smoothed away the Master's frown.

That donkeys with a grateful bow,  
Laid wreaths of laurel on your brow.

P W R Foot

Haunted by the names of places,  
Saadabad, Diarbekir,  
Flecker made his journey eastward,  
where the minarets appear  
High above Constantinople, lingering  
in the evening sun  
Like a half-remembered story from the  
Thousand Nights and One.

Ancient ships he found were sniling  
still across the Golden Horn.  
Ancient caravans were waiting in the  
fountain-silver morn;  
Eastwards still he took his journey, till  
the mountains and the sand  
Turned to cloudy dreams of England  
on the Road to Samarkand.

Nothing stays; the greatest poets join  
the Caliphs and Wazirs;  
Only songs like happy pilgrims cross  
the deserts of the years.  
Bearing perfumes, ghosts of spices  
from the source of all their skill,  
Dying young in rainy wartime, think-  
ing of Leckhampton Hill.

Paul Griffin

Clarke

In Helpstone is your grave, or where?  
Is it trim lawn, and kept with care?  
A wilderness where birds repair  
And nest would honour best John  
Clarke.

Before the commons were enclosed  
And hedges still were briar-rosed  
And lacy elder-flowers dozed,  
With moles and dormice wrinkle-  
nosed.

The wildernesses that remain,  
The shrub-choked unoccupied lane  
And ponds not found worth-while to  
drain.

Hold still your ecstasy and pain  
And with your living poetry  
Will loveliest memorial be -  
Corners of England living free  
With all your eyes once led to see.

George Moor

Auden

You gave our headaches and fears  
some slight but definite relief.  
Even your lapses, your false  
graffiti, "Miss Gee" - all were ways  
through a mind to a limestone view  
we won't have the gumption to take.  
You took the false certainties put  
in cobble, humanist verse.  
And not to have stumbled on you,  
lying on your wrong side,  
dead in that hired room,  
means not to have realized how  
by loving we might have survived,  
by not we made headache worse.

Fred Sedgwick

Competition No 44. Set by Seylla

Evelyn Waugh writes in his diary of the  
old woman who, asked if she was  
Conservative, said: "I should just  
about think I am. Why the woman next  
door's Labour and her hens do eat all  
my greens. Will you. In up to 12 lines  
of verse give some of your reasons,  
equally random or even wanton, why  
you might vote Lib, Lab, SDP or  
Tory? Closing date October 19.

## Dorset affair

The Trumpet Major. By Thomas Hardy.  
The Victoria Theatre Stoke on Trent.

*The Trumpet Major* is a captivating tragedy in which Hardy succeeds in blending his absorption in the era of the Napoleonic Wars with the quirks of irony that torture his victims so remorselessly. What *The Vic* has managed to do is to crystallize on the stage the very real tensions brought about by fear of the invading French and the subsequent effect on personal relationships and day to day affairs of Dorset folk.

Tom Griffin, who plays the very best from this company. The

## Masked celebration

Lynne Truss previews Channel 4's 'Oresteia'

*The Oresteia* at Epidauros.  
Channel 4, Saturday October 8, 8pm.  
*The Oresteia*.  
Channel 4, Sunday October 9, 7.15pm.

While tomorrow's documentary programme on Peter Hall's *Oresteia* is ostensibly about the visit of the production last June to the amphitheatre at Epidauros in Greece, its main purpose is obviously to prepare viewers for the full-scale screening of the trilogy on Sunday.

Using interviews and rehearsals filmed in Greece, the programme concentrates on the major stylistic aspects of the National Theatre production: of Aeschylus's great trilogy; the all-male cast, the music, the transition and the use of full masks. Each explained and illustrated; and in the case of Tony Harrison's brilliant, controversial translation, with its Anglo-Saxon gutturals and labials, its relentless alliteration and compound-words ("blood-bond", "blood-grudge", "god") does it strike a defensive note. The scholar Oliver Taplin is brought in to testify to the translation's authenticity: Harrison himself, filmed sitting under a tree at Mycenae, seems fed up with talking about it.

The programme is most interesting on the full masks, the use of which seems to have anything else dictated the style of the production. Hall is shown in an interview with a Greek journalist around to this topic: "The subjects of Greek tragedy", he says,

"are so violent, so ugly, so hysterical and in some sense so impossible to verbalize that you have to have a mask on to contain the emotion and describe it". Masks are often glimpsed lying about, disembodied and gaping. Designer Jocelyn Herbert, taking a break from building the set, smiles indulgently as she recalls how in rehearsals the actors couldn't stop themselves from practising with their masks in front of mirrors. "Ethically," she says in mild reproval, "every movement ought to come from the mask and the text".

"One begins to appreciate why it took six months' rehearsal to bring the production to its opening. It is shown to be extremely technical. Actors not only have to get their tongues around thousands of lines like "A grudge gored my gut like a goad to a race-horse", but they must also speak in strict tempo with the music and project their voices through the heavy, dominating masks. Greg Hicks, who plays Orestes, is shown putting on his striking white-faced mask to demonstrate how "it produces characteristics in me: I don't impose characteristics on it", and then saying suddenly, "I'm going to have to take the mask off now, ok?" "Why do you have to take it off?" "Because I can't talk in it".

On Sunday the entire trilogy will be shown, starting at 7.15. There are simple drawbacks associated with television: the actors are likely to lose the impact of the production; the inter-cutting of close-ups, for example, inappropriate anyway when actors are wearing masks designed to be seen from a distance, is a technique that might well distract viewers from the words, attention to which is paramount. And it is a pity that, as the production was filmed during public performances, there is not more sense of it as a theatrical event. There are few shots of the whole stage (so the groupings of the chorus are sometimes missed), there are no shots of the musicians, and saddest of all, there is no applause at the end. In the Epidauros programme the enthusiastic reception is thrilling; and at the Olivier what the masks were at last taken off to reveal the small, pink, puffy faces of the actors underneath. On Sunday the actors don't really get their due, and the high celebratory note on which the trilogy should end is marred.

Television's drawbacks aside, this is a magnificent production, graceful and powerful. It does reward the high degree of concentration it demands. One of the actors in Saturday's programme, having absorbed Tony Harrison's compound-word syndrome, says on arrival at Epidauros that he's "a bit gob-smacked". That's probably how you ought to feel after *The Oresteia*.

A "programme" for the Channel 4 screening, which includes a cast list and useful background articles on Aeschylus and his trilogy, is available from Channel 4 at PO Box 4000, London W3 6XJ, Glasgow G12 9JQ or Belfast BT2 7FE.

## Wide powers - narrow options

Danton (PG)  
Cinema, King's Road.

André Weidmann's film opens with Danton's coach returning to Paris past the guillotine, which is being used to execute the two main protagonists, Robespierre and Danton. In the film's opening, Danton's "blood" pours down the straw below the guillotine. With this framework, given the inevitable tendency to draw parallels and the personal and political life of the two main protagonists, it is not easy to guess what the film is about.

But, that is, if you ignore what is actually happening on the screen. Gerard Depardieu plays Danton like a top. He is a brilliant actor, as an elegant, sophisticated, and snappy. He is a man who is not afraid to be contrasted with the pined and emaciated Robespierre. Yet what we see in the

disipation of Danton's energy in meaningless outbursts. He glories in physical contact with "the people", but fatally misconstrues his appeal and has nothing concrete to offer them, while his cold-blooded antagonist, sweating with fever, shows the clearer grasp of political realities and, in their confrontation, reveals the limitations and even the insincerity of the other man.

Both are ultimately reduced to inaction; Danton's head falls and Robespierre's is covered with a sheet as he acknowledges his inability to control the mechanism he has set in motion. The Committee of Public Safety during the Terror was, as Weidmann shows it, a hive of bureaucratic activity whose members snatched brief periods of sleep in their offices while attempting to govern a country at war, in the midst of an economic crisis and, at the same time, to invent and restrain the institutions of republican rule. They had neither the time nor the energy for any but the most convoluted historical. They knew that the Terror was con-

ter-productive, but saw no alternative to it. Like all political leaders, they faced the paradox of wide powers and a narrow range of options.

So what might seem like a clear choice between warm humanity and cold idealism resolves itself into a far more complex debate on the historical process. Its tensions deriving no doubt in part from a script casting Danton as the hero, based on a play favourable to Robespierre. The non-naturalistic use of colour, Prodromides' jagged score, and the camera's attention to details (such as the sabot brushing the cut hair on the floor of the Conclergerie), contribute their meanings to the narrative, while the children (the baby held up to watch Camille Desmoulins as he is led off to execution and the boy reciting the Declaration of the Rights of Man to Robespierre) suggest the continuation of the debate through successive generations.

Robin Rus



## ARTS

## Box of tricks

**Tales From Hollywood.** By Christopher Hampton. National (Olivier) Theatre. **Snoopy - The Musical.** By Charles M Schulz Creative Associates. Duchess Theatre. **Great And Small.** By Botho Strauss. Vaudeville Theatre. **The Tempest.** By William Shakespeare. RSC: Barbican Theatre. **Glengarry Glen Ross.** By David Mamet. National (Cottesloe) Theatre.

In *Tales From Hollywood*, Christopher Hampton's new play, the great and famous jostle one another to make their mark: Thomas and Heinrich Mann with Chloé and Harpo Marx, Brecht and Helene Weigel with Tarzan an eye to theatrical magic, kaleidoscopic scene changes exploit the stage as a box of tricks: exciting wonder and delight. The text is engagingly amusing, the acting nicely done. It is a coffee-table play: lightly literate, superficially cultural, tastefully showy. Hampton starts supposing Odón von Horvath had not died in a freak accident in Paris in 1938. Suppose he had emigrated to America, like the poet in the novel he had just begun to write, and had joined the anti-Nazi German exiles in Hollywood. What then? The possibilities are tantalizing. Can a writer develop out of his roots? Can he find a new voice with a new language? Has he a political role? A prophetic function?

Bringing giants of literature, theatre and film together, the play flirts with such ideas, exploiting whatever humour they offer, tickles and teases but balks greater issues. I was left feeling that Hampton had intended something more serious which had not come off: a diet of éclairs and milles feuillets substance.

Something similar could be said of

*Snoopy - The Musical*, a light-hearted enactment of scenes from the Peanuts strip-cartoon by seven bright and talented young people. Larry Grossman's music and Hal Hockaday's lyrics parody Jolson, the Andrews Sisters, Country and Western, *A Chorus Line* - with a smashing actions number: "Don't Be Anything Less Than Everything You Can Be". It is fun to see the familiar characters come to life in and out of school, and the all-American home-again philosophy never fails. But is it worth the effort?

Yes, when it comes to *Great And Small*, a new play by Botho Strauss starring Glenda Jackson. Some people left after Act 1 and I was totally confused. The acting was excellent and the cast clearly committed to the play. Why? I was intrigued so I stayed. Thank goodness. Act 2's truth made all things plain. Botho and Jackson take the risk of drawing us into the increasing confusion of the principal character, a descent into madness to show us a reflection of the age we live in. What was disjointed, apparently incoherent and meaningless, came together in an image of our times: Lotte the bag-lady, trundling her supermarket trolley, blissfully convinced of her destiny as one of God's 36 Elect. Keith Hack's direction, with its telling use of quiet stillness, draws from the whole cast multiple-character performances of truth and power. Leading them is Glenda Jackson in a performance of sustained brilliance from beginning (a 15 minute soliloquy in which our attention never wanders) to end: a superb actress in full control of her formidable technical and emotional range. Alas, it is due to be replaced by something less innovative and demanding. Anyone who cares about good and relevant drama, about fine acting, cannot afford to miss it.

Ron Daniels' production of *The Tempest* can be missed. It is redeemed

only by Alice Krige's performance as Miranda and Christopher Benjamin's Trinculo. A mish-mash of styles straining after novel readings, mistaking hucknabed stage-effects for artistic comment, it is a sorry mess through which Derek Jacobi postures and elicits as a martinet Prospero. It may be that he is overrated: so who would not be essaying Benedick (splendidly), Peer Gynt (movingly) and Cymbeline (magnificently) all in a season? Maria Bjornson's setting, more suited to a Drury Lane pantomime of Robinson Crusoe, ill serves the text. A catalogue of the other defects would take up too much space. Give it a miss.

But don't miss *Glengarry Glen Ross*, David Mamet's new play premiered at the Cottesloe. Three conversations overheard in a Chinese restaurant occupy Act 1. They tell of a competition between real-estate salesmen for a Cadillac or the sack. Everything depends on getting the right "leads" from the office clerk. Act 2 shows us the office and the effect of the break-in to steal the leads. The language is compounded of expletives, grunts, sighs, interjections, repetitions: a miracle of life-like conversation brilliantly handled by Trevor Ray as Dave and Jack Shepherd as Richard especially. The themes of exploitation and greed, of men driven to their wits ends by business pressures, of human inhumanity, and of the turning worm - are marvelously expounded by Mamet, each one coming up new, powerful and funny. It is a triumph for director Bill Bryden, designer Hayden Griffin, and for the National Theatre. And who were there to witness it? No less than Michael Frayn, Peter Shaffer, Tom Stoppard, Arnold Wesker and Timothy West, all within feet of your reporter. Looking for tips?

John James

## Repression, expression

**Cinema of the Humble**  
C4, Monday, October 10, 11.00-12.30 p.m.

At one point in Michael Chabon's documentary, the Cuban director Julio Garcia Espinosa tells a story about an encounter with a police spy under the Batista regime. With more than a hint of self-mockery, the intellectual describes his attempt to explain the meaning of his work to a particularly obtuse representative of the government which has banned it. The anecdote unfolds, intercut with scenes from Espinosa's films, building up to its punchline. The official says that the film is "una mierda" (the director explains about the influence of Italian neo-realism ("my first lecture on the subject"). The story meanders, but purposefully: this is no shaggy dog. Like Chabon's documentary itself, it is all the more effective for the oblique way in which it makes its point.

**Cinema of the Humble and The Long Road** (to be shown on October

17) are intended to introduce a brief session of Latin American cinema on Channel 4. But they do more than that. By examining the way in which cinema has developed in these countries, against a background of political repression and in opposition to the slickness of the product imported from Hollywood, they raise important questions about cinema and its role in society. Their theme is the attempt by film-makers from different countries, living under different political regimes, to discover reality where others had invented or imposed it. Latin American films are among the most exciting examples of Third World cinema, and the richness of their purpose is in no way contradicted by the wit and intelligence with which their directors describe it.

A book, *Twenty-Five Years of the New Latin American Cinema*, edited by Michael Chabon and published jointly by the BFI and Channel 4, accompanied the season (price: £2).

Robin Buss

## Drama's character

If education for 14 to 19-year-olds needs to be re-thought to meet both the present needs of industry and a future in which industrial work will have been dissolved by technology, what part should be played by drama in the new curriculum? This was the question at the heart of the National Association of Drama Advisers' open course conference "Drama for Capability", at York recently. It raised, of course, all sorts of other questions, about the contradictions in the demands we make of our secondary schools, about the proper relationship of schools and society, about the role of drama in any curriculum, and indeed what drama in schools ought to be.

Many of these views were explored in the small group meetings which made up the main activity of the conference and will form the basis of a set of papers to be published in book form. Because of the importance

attached to these meetings, the number of guest speakers was kept down, and mainly concentrated in the open day on Friday. They scattered some illuminating remarks: from Geoff Cusker, head of Shafesbury Community School, "Curriculum is the number one curriculum tool"; from Desmond Hogan, "Perception of pain is the beginning of change"; and "It's always the staff room isolate who gets sent on conferences" (much laughter from the extremely gregarious conference); and from Dorothy Heathcote - "You have to think people so that the audience is possible for them." "What I know is how to get at what I know," and, most pertinently for the theme of the conference, "British Gas understands what I know better than education people. Perhaps we shall get out of schools to concentrate on teaching, instead of on learning."

Andrew Laski

## No third dimension?

**Cadbury's National Exhibition of Children's Art.** The Mall Galleries, London until October 15, then Leicester Museum and Art Gallery October 22-November 24, City Art Gallery, Stoke on Trent January 13 - February 22, City Art Gallery, Edinburgh March 2 - April 6, Walker Art Gallery, Liverpool April 13 - May 17, Lining Art Gallery, Newcastle May 25 - July 1.

Like Wimbledon and Ascot, this annual exhibition of children's art has become a social event. Now in its thirty-fifth year, it is much younger than the Royal Academy's summer spectacular but, taking that institution as a model, Cadbury's have already sent two groups of winners on a Grand Tour of Italy and this year managed to get Princess Anne to open the show. The parade is even closer when you notice that previous winners like Tracy McCormack continue to exhibit as if they were academicians and that in December, at the Guildhall Art Gallery, there will be a retrospective exhibition of work by her and all the others who gained awards during the last five years.

On the admission of the organisers there has been little change in the pattern of selection or presentation since the event began. Printmaking,

sculpture and the crafts are well included but despite an annual for the best submission in the last category is still drawing and painting to dominate both in quantity and quality. Does this reflect a wider cultural prejudice or is it because most three-dimensional work is neglected in that although there are many examples of closely observed and well-realized work in pencil and paint, none piece of sculpture achieves the same technical or aesthetic standards.

Standards, however, have undoubtedly changed. Only a few years ago there was a visible shift from the pursuit of technical virtuosity by these in their teens and the clearly preferred it that way. They were with the possible exception of the Close, not one of the four winners is content merely to "record". Robert Strange distorts his hands for emotive effect, the Sugden intensifies colour in a portrait of a friend, and Michael Jackson, preoccupied with atmospheric mood, pushes landscape to the edge of abstraction. Perhaps the show will confirm this shift.

Michael Clark



"Liequeurice Allsorts" a fabric print by 17 year-old Victoria Robinson. Herford School, Westward Ho, Glos. Highly recommended in the section of the Cadbury exhibition.

## Ear-catching

Bright green and yellow horn players herald from eye-catching new posters the Arts Council's twelfth Contemporary Music Network season which began this week with a concert by the British Camerata Orchestra at the Eldon Theatre, London. Thereafter, it will give concerts in 10 venues throughout England and Wales - look out for the incredible dragon eyeing the long-headed trio. For equally ear-catching experiences, it will be necessary to go to one of the 150 or so concerts or educational events which will take place between now and next March.

The Contemporary Music Network features what must be the most extensive and fascinating range of new sounds to be heard in this country. Following the exotic attractions of SGO, a new Mike Gibbs Band promises to offer a hint of the African and Latin American styles which currently concern Gibbs. The eleven piece ensemble will include two guitarists and two percussionists.

Even the Nash Ensemble, that most English and eclectic of chamber music groups, is venturing both east and west in a programme that includes Constant Lambert's *Jazz Piano Concerto* and Prokofiev's *Symphonic Quintet*. Following the Nash's liberated con-

trol, comes the disciplined freedom of two improvising groups: *Blue* from Britain and *Evidence* from Germany. The final tour of 1983 will present a little of the more attractive world of electronic music. Our own West Square Ensemble, a virtuoso of the bass clarinet, will be joined by the *Music Ensemble*, a virtuoso of the bass clarinet.

In the new year the London-based playing works by Brian, Lancelotti, Xenakis and Fernandopoulou, will be joined by a new band of young entirely of brass players and a rhythm section. The world-known Percussions de Strasbourg will be joined by the London Sinfonietta. The London Sinfonietta is likely to be generally upstaged by the *Frankfurter Kammerorchester*, a "pantomime orchestra" of the season, and another strange combination - a trio from the Soviet Union. For complete educational enjoyment and the extensive educational programme, contact Angela Morrison, the Arts Council Music Department, 01-629 9495.

Andrew Laski

## The senior academics' revenge

By Christopher Price

**The Attack on Higher Education.** By Maurice Kogan with David Kogan. Kogan Page £3.95, 0 85038 7566.

The Kogans (uncle and nephew - ie brother and son of the publisher) have written a moderate, up-to-date higher education "whodunnit". They have taken the years following the election of the Conservative government in 1979 and tried to disentangle the logic of the massive cuts which took place and discover where the responsibility for them really lay. It was not an easy task. Ministers and civil servants, suffering under rampant monetarism for the first time in their lives, simply reiterated that the policy was "expedient" - a euphemism which simply connoted a policy vacuum, linked to a general determination to limit public expenditure. In the Treasury there was a particular rationale behind it, apart from an insistence that the DES should take its "fair share" of the cuts. The DES civil servants then simply did as they were told.

Yet almost as soon as they began to be made, the cuts were being justified by ministers on quasi-educational grounds. Cutting became "good" for education. Rhodes Boyson was most eloquent on the subject. He did not believe that two A levels necessarily meant that young people were academically able; a period of consolidation would do no harm; all the done spoke to privately agreed with him. He also made a virtue out of the overseas student debacle. The outcry over these students "was a knee-jerk of the Left". The investment (in them) seemed to be the worst we had ever made.

When William Wollstonehouse succeeded Boyson both the rhetoric and the substance changed. But the authors make clear that the first instinct of the real politicians in the government was to try to squeeze some populist capital out of a "minority" cause. They also point out that this was a surprising line to take. Like Maurice Kogan, both Rhodes Boyson and Margaret Thatcher were first generation scholarship youngsters in their time. Pulling up the ladder of their successors was a vindictive, and in many ways characteristic act.

While ministers and civil servants were just being good monetarists, what were the UGC up to? As the Kogans make clear, the government didn't tell them how to save the money - they just said "Save it!" The UGC

were peculiarly unfitted for the task placed upon them. Established half a century earlier, as an Establishment organization to fund the universities with minimum fuss and zero publicity, they had never been faced with a situation like this before. Up until 1979 they had been little more than a "sagittarius" (Sir John Wolfenden's phrase) in which university dirty linen could be quietly processed and dealt with. They thought about various options - a cut across the board, closing one or two universities, crowding up and reducing the "unit of resource"; one by one they rejected them. They would have had to close a lot of the weaker universities - at least five the Kogans reckon - and clearly the politics of that operation terrified them. Nobody seemed to want a generalized cut. So they opted for a conditional series of judgments of quality and availability of different subjects, which attempted to maintain the unit of resource; and that also meant cutting back on the chances of going to university for a whole three year tranche of students who were qualified and capable of doing so. This destruction of the Robbins principle is the gravest charge the Kogans level against the UGC.

The other is that they botched the operation. The whole thing was conducted in secret, to the accompaniment of promises of "consultation" - which in effect meant asking the vice chancellors and their immediate henchmen what they proposed. So judgments were made which were nonsensical and wrong, because the tiny band of academics on whom the UGC depended simply did not know enough to make those judgments. Then again they did not even take seriously the ultimatum option which might have called the government's bluff - resignation *en masse*. Certainly Sir Edward Parkes considered resignation, but stayed on to make cuts which were "less worse" than those which the DES would otherwise have imposed. It was an understandable naïveté. But the failure to be tougher with the government by at least a serious threat of resignation probably, in the longer run, will turn out to have killed the UGC. Finally tested after half a century, it failed to deliver on the issue which was central to its whole *raison d'être*.

Yet the real wrath of the Kogans is reserved neither for the Government nor the UGC but for those treasonable clerks, the senior academics. They quote Dr Robert Brockle Hunter (now

enobled) the vice-chancellor of Birmingham, who coped less than adequately with the student unrest there in 1969: "We have earned, and in the national interest deserve, special treatment in the way of provision of staff and resources. This is elitism against the current vote-catching egalitarianism." This was Sir Robert, six years after the riots, preparing the way for Mrs Thatcher and Keith Joseph. The truth that the Kogans discern is that many senior academics actually wanted the cuts - they were each far more concerned with restoring the elite pattern of the university as they remembered it than with making provision for Britain's youngsters as Lord Robbins had said it should be provided, a course for every qualified applicant to higher education. With this sort of groundwork, it was not difficult, as the subsequent House of Lords debate, for Lord Swain, Viscount Beloff quietly to bury the Robbins principle on which so many high hopes had been based 20 years earlier. The cover of the book shows Sir Keith Joseph wielding a hatchet; but its message is that government ministers did not even need to do the hatchet job; senior academics did it for them. It was their revenge for 1968.

The book is a little early to finally tie up the ends of the cuts in higher education. The authors surely point out that savings in the end were minimal because of the cost of redundancy; that "new blood" money injected after the cuts favoured Oxford and Cambridge and helped distort the whole balance of subjects; that in spite of the monetarist pretensions of the exercise, there were ideological ones as well - the Independent University of Buckingham - whose courses were of no perceptible special value to the nation - won most favoured status in the middle of the whole operation. The final message is that it was a political operation which the world of higher education proved quite unequal.

If there is one criticism, it is that the title is as misleading as the picture on the cover. The book is mostly about the university cuts; the university botch-up created a rather more open system for the polytechnic cuts, if no less painful. Indeed if the universities watch the present NAB exercise carefully, they could learn a lot. Some of them might even decide that since the binary system proved no protection for them, next time there is an assault on higher education, higher education should stand together.

## Intellectual Heath-Robinsonism

**The Definition of Literature and Other Essays.** By W W R Robson. Cambridge University Press £19.50.

Literature, it seems, is a hot word. We might be surprised, though not newsworthy, by the frequency with which writers, critics, mediators go on record as saying that European writing is "in a deep, perhaps terminal, trough". It is against this background that Professor Robson gamely sets out to justify the critic's ways to men. In the first four essays, which are intended to give this volume theoretical weight, Professor Robson asks what should qualify as literature and what can be expected from novels. He examines the interpretative and evaluative claims of criticism. There are at least as many answers as questions, and if he attempts to do battle armed with no more than deliberate common-

sense ("We cannot telephone Mollère" and plain language issues eventually in a kind of intellectual Heath-Robinsonism, that is maybe modern criticism's fault, not his. Academics, however, are unlikely to find this ingenious even-handedness provocative, and I wonder whether the "broader world of reflective people" for which the discourse is designed is actually out there, deciding which book to pick up next.

If it is, then I am not sure what Professor Robson wants to tell it about the literature under discussion in the next five essays. Who but an academic would relish the discovery of "political allegory" in *The Wind in the Willows* or ask: "How much stress do we put on the possible class implications of the Mole's 'Up we go!'?" We're reminded about an interesting and enchanting book, but this model critical treatment seems like a joke.

the reason, an increasingly large number of schools, youth and amateur drama groups are forsaking the straight play and turning to the musical. Now at last they have a book which tells them how to do it.

Peter Spencer's *Musicals* has a number of points in its favour. To start with it is a full-length book, rather than just a chapter in a volume on amateur production skills, and can therefore deal at length with subjects like auditions, rehearsals and how to plan a show, scenery and lighting. It also

and the wonder at Leavis's exclusion of *Kilnclaffer* from *The Great Tradition* is an odd way to strike a blow for Stevenson. It's difficult to see what motivates these observations, reasonable and rather old-fashioned essays.

The obvious strength of this collection is in appraisal not of poetry but of criticism. Hopkins's letters receive an engaged sympathy of approach and the resolution of T S Eliot's authority and insight with those famously contradictory and gestural pronouncements is the best I've seen. (A Richards's work comes in for timely and just recognition, and although Yvor Winters may sound like a stubborn idiot ("this list of great points in English" - excludes, among others, Shakespeare, Donne, Marvell, Milton, Dryden, Pope...)) Professor Robson is clearly quite able to deal with that kind of thing.

Michael Bird

## Music!

**Musicals: A Guide to Amateur Productions.** By Peter Spencer. John Murray £9.50, 0 7195 4032 1.

The way of looking at it is to thank Tim Rice and Andrew Lloyd-Webber, for having popularized the rock opera. Another is to accept that there is only one *Godfather* and a finite number of *Madame de M...* Whatever

startlingly up to date, with references to the current Drury Lane production of *The Pirates of Penzance*, *Cats* and *Nine*, at present the hottest show on Broadway. Most importantly of all it is eminently practical: not afraid to go back to basics, never too West End to forget the small society doing *Oliver!* or *Rose Marie* in the local under-equipped church hall, and rounded off with an extremely comprehensive directory of shows, suppliers and services.

Hugh David

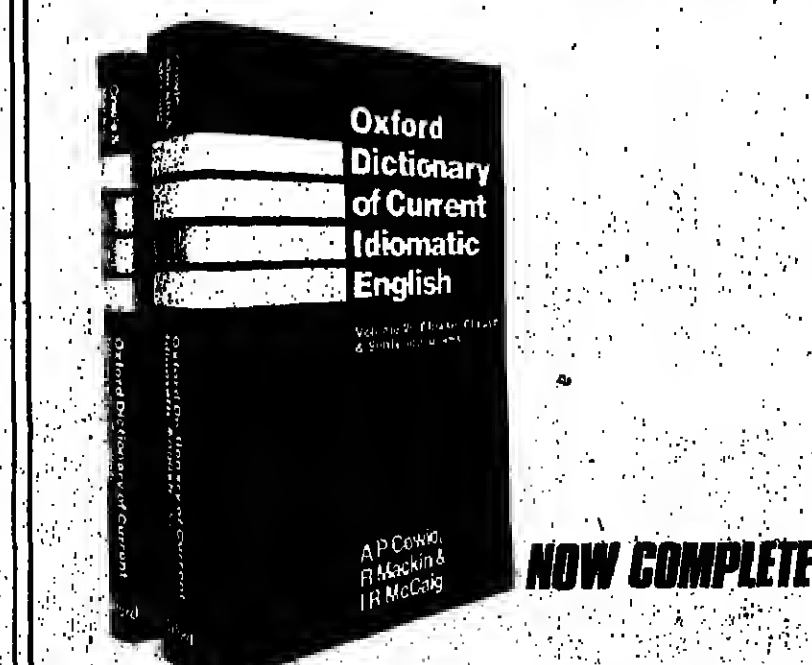


This fowling and fishing scene from the tomb of Nakht is taken from the *Penguin Guide to Ancient Egypt* by William J. Murnane (£12.50 and £6.95 paperback). Traveller's companion or armchair dream-guide, it is packed with information, diagrams, photographs and maps.

Two many specialist dictionaries and reference guides are mired by a web of cross-references so complex - q.v., c.f., see above, see below - that they are only likely to confuse everyone but those least likely to need such a volume, those who are already experts in the field concerned.

**Among this week's contributors:**  
Christopher Price is currently overseeing policy on biotechnology at the Polytechnic of the South Bank.  
Colin Ward is author of *The Child and the City*.  
David Whitehead lectures at the University of London Institute of Education.  
Facts About the Arts (reviewed in *The TES* 23.9.83) is published by the Policy Studies Institute and not the Centre for Policy Studies as stated.

the greatest thing since sliced bread (catchphrase) sb/sth new, or of recent introduction, that is much admired or appreciated



**Volume 2 published 27th October**  
Volume 1» Verbs with Prepositions and Particles £6.95  
Volume 2» Phrase, Clause and Sentence Idioms £12.50  
**Oxford University Press**







## RESOURCES/SOFTWARE

Programs from ASK  
For BBC Micro, VIC-20, Dragon.  
Individual cassettes £9.95, £39.95 for  
all five on one disc or as a set of  
cassettes.  
ASK, London House, 68 Upper Rich-  
mond Road, London SW15 2RP.

Adults are curiously resis-  
tant to the idea of very  
young children using com-  
puters. Teachers at  
Eugene Delanter's Children's Com-  
puter School in New York appar-  
ently find that children have to be five  
or six before they can use software. My  
recent experiences with ASK soft-  
ware and assorted three to six-year-  
olds suggests that this is a reflection  
either on their pupils or on the  
software. I'd bet on the software.

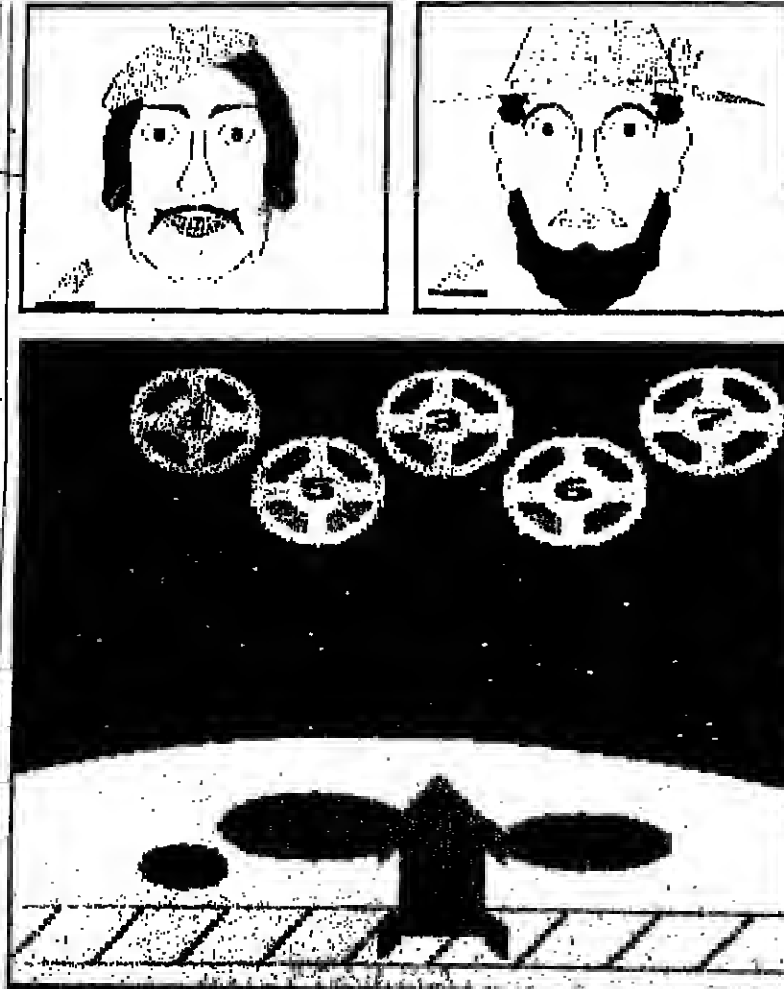
ASK was set up by Tom Stinner of  
Bradford University; its Consulting  
Editor is Mike Thorne of University  
College Cardiff. Two such promi-  
nent names in the world of educa-  
tional computing serve as a good in-  
troduction to their software which is  
designed for children in the 3 to  
12-year range. Their first release of  
five programs is reviewed here in the  
BBC versions (Model B) but ver-  
sions are available for other  
machines.

## On the face of it

Jacquetta Megarry  
reviews programs  
for young children

interest in faces; the possibilities for  
stimulating talk, questions and  
humour are immense. To criticize  
the crudeness of some of the  
graphics or the oddities of language  
would be to miss the point. My main  
regret about the program is that it  
was not made to appeal to a wider  
age range. To use it without an older  
child or adult present, a child would  
need middle to upper primary levels  
of reading, spelling and vocabulary  
skills.

ASK's blurb claims that "great  
attention is given to building 'depth'  
and variety into the programs", yet  
Facemaker has no provision for  
varying the level of the demands it  
makes on the user. Had there been



From "Facemaker" and "Space Stations". Below: from "Number Guesser".

the option of a multiple-choice mode  
(as an alternative and perhaps pre-  
liminary to the constructed-response  
mode), younger children could have  
used Facemaker to discover the  
meaning of "bulbous" or "tribble",  
as well as enjoying face-making as a  
stimulus to language work. In addi-  
tion, a simple collection of default  
values (or even random generation  
of size and combinations of features)  
could give an entertaining and cap-  
tivating demonstration mode which  
would appeal to toddlers or even  
babies.

Let's Count, Number Puzzler and  
Number Guesser are three cassettes  
with different approaches to build-  
ing and practising number skills.  
Unlike Facemaker, all three contain  
games at a variety of difficulty levels  
(Number Guesser has 19). The first  
two cassettes combine distinct games  
on a common theme.

Let's Count was my favourite.  
Four scenarios offer progressively  
more challenge, with each of four  
number groupings (1 to 3, 0 to 4, 5 to  
9 and 0 to 9) to give a lot of depth and  
variety for children from three  
years upward. Secondary school re-  
medial departments might be glad of  
such programs.

In Treasure Island, the child simply  
matches the number of shields on a  
boat to the treasures on the islands.  
It is perhaps unfortunate that a  
single shield looks so much like a 0,  
but this soon becomes clear. Correct  
answers are celebrated with a hom-  
pipe, wrong ones discouraged with a  
brief raspberry. Space Stations gets  
the child to shoot a rocket with so  
many windows at a space station  
carrying the corresponding numeral;  
this time success is rewarded by  
pleasing 3-D distance effects and  
Star Wars music.

Kill-a-Ball is set in a bowling  
alley, and numerals appear again.  
This time the plates have to be  
bowled in ascending order of mag-  
nitude of the numeral they carry.

Which Way introduces number  
comparison, with unequal sets of  
coloured objects mixed up together;  
they have to be carried into different  
chutes according to whether there  
are more blue than red, equal  
numbers or less. Persistent wrong  
answers produce a tidy rearrange-  
ment to make the comparison more  
obvious. Right answers are re-  
warded by pleasing animation.

Number Guesser uses a maze-style  
arcade game with first instruction  
and beguiling sound effects as a  
source of motivation for practice of  
the four basic operations. The child  
chooses a target number and has to  
guide the gulper through the maze,  
choosing which numbers to gulp in  
order to turn the starting number  
(selected by the program) into the  
target number. Excessive trial-and-  
error is effectively discouraged by a  
time/energy bar which expires at  
different rates according to difficulty  
level.

From Level 3 upward, the  
dreaded scramblers appear; if they  
are not avoided, the target number is  
changed capriciously and further  
planning is required to compensate  
for this. Subtraction involving nega-  
tive numbers is excluded, as is  
division involving remainders. A  
self-test option (with an interesting  
self-imposed time limit) comple-  
ments the gulper game. It tests the  
analysis of expressions like  $6 \div 9 \div 5 + 2 = ?$  whereas the game tests  
synthesis. Harder versions of the test  
combine multiplication and division.  
Control of the gulper would have  
been easier with joysticks (entered  
for by the program) than with the  
ZX and Y keys. However, it is  
Acorn's fault, not ASK's, that the  
cursor controls don't make the best  
of this with a natural curriculum.

The Number Puzzler cassette con-  
tains five games, of which the first  
three are all based on noughts and  
crosses. The games are played  
against either the computer or

another player, and difficulty is  
controlled both by the size of the  
board and the number of noughts  
played at once. The games involve  
addition, subtraction or both. In  
Magic Square the child has to fill in  
the square so that columns, rows and  
diagonals add to the same total. At  
any time she can fall back on the  
computer for a solution. There is  
also a self-test option on this cas-  
sette, which combines a variety of  
palpable number drill-and-practice  
routines.

Hide and Seek contains many  
games which are variations on the  
mimicry with neat sound and graphic  
effects. Find It shows the child  
pictures in six boxes and she has to  
remember which went where when  
they are hidden. Seek It has six  
boxes and offers four games of  
varying difficulty. In the first, the  
child can choose where to put  
each item, so the use of different  
organizing categories can help her  
remember. Finally, What's Missing  
has been removed in two versions:  
one involves reading, the other spell-  
ing. The notes give a dictionary of words  
presented (especially helpful when  
the graphics are involved).

A distinguishing girl from woman. The  
also rightly stress the value of a  
operative work on the many  
games, and of integrating computer  
work with other approaches.

All five cassettes share a sleek  
set of ASK conventions about the  
use of the space bar, return and  
escape keys, and teachers may be  
grateful to be able to vary the level  
(CTRL-S). The 12-page book-  
lets have brief educational notes as  
well as guidance on loading and  
using. User-modification of the  
program is clearly neither encour-  
aged nor encouraged. Overall, these  
cassettes set an encouraging standard  
both of design and presentation.

I had some loading difficulties  
with most of the cassettes. Although  
my cassette recorder or the re-  
lease recordings may have been  
faulty, I have no doubt that the  
primary school which can find the  
money for a disc drive will not  
regret the investment. ASK has  
been quick to recognize the demand  
for BBC software on disc. What  
applies that their pricing policy does  
reflect the lower raw-material, sta-  
ge and posting cost of one disc  
versus five cassettes.

For those of us who are trying to  
convince others that the computer has  
a great deal to offer to teachers of the  
young and dumb, it is a rather dis-  
heartening find that the available soft-  
ware may be downright computer-  
poor. The possibilities are endless  
and those currently producing material  
seem to be settling for the least  
interesting options; and giving far too  
little help to the teachers who might  
use their products.

One of the arguments of those who  
object to the use of the machine is that  
most of what one does with it can be as  
well done by hand. This is certainly  
true of Word Hunt. Every English  
teacher knows that there is no more  
effective way of settling a class down  
than to give it a word search to be  
done. The "Evening Standard Word  
Search" is no pupil who is even margin-  
ally literate can resist the challenge to  
find as many words as possible out of  
the letters of a given one, and pencil  
work is perfectly adequate  
motivate through the use of the com-  
puter, and it is hard to see what the  
point of computerizing this activity.  
The sequencing of words into sent-  
ences and sentences into coherent  
paragraphs is a game, more of a  
puzzle, and for the majority of  
children, this is just drill, and I do  
not think that the computer as a  
driller is any more novel than the  
vowel game, involving the insertion of  
the right vowel into short words with  
the encouragement of the little depend-  
ing man, could be a useful activity, but in  
the end it is all rather disappointing.

done; much more important, however,  
is the uncertainty about what the  
program makers are expecting pupils  
to get out of the exercises.

There were various possible  
strategies for re-arranging the word  
sequences to make sentences, some  
faster than others, some with more to  
do with one's recognition of basic  
sentence structure than others. If the  
object was to teach English sentence  
structure, I found it hard to believe  
that repeated practice with the  
machine would really tell the native  
English speaker much more than he  
already knew, though it might be  
helpful to the ESL learner. However,  
the object may really have been to  
enable children to develop swift sort-  
ing procedures; it would be valuable to  
know.

The same tiny channel of com-  
munication between program designer  
and user is present with Golem's  
program, and these again, though  
ingeniously packaged, with a delightful  
little graphics man who dances about  
joyously when the pupil gets things  
right, seem depressingly unambitious.  
There is something to be said for  
putting a game of Hangman in the  
machine, since it is a game which needs  
an opponent, not just pencil and  
paper. Again, the suffix exercises are  
useful, and do make very clear the  
value of the computer as a teacher.  
In the end, this is just drill, and I do  
not think that the computer as a  
driller is any more novel than the  
vowel game, involving the insertion of  
the right vowel into short words with  
the encouragement of the little depend-  
ing man, could be a useful activity, but in  
the end it is all rather disappointing.

## RESOURCES/SOFTWARE

Ballooning  
Car Journey  
Special Agent  
Punctuation Pete  
Helmman/Five Ways for the Spec-  
trum  
RRP £9.95 each.

Helmman's ingenious  
attempt to sell their educa-  
tional software to both pa-  
rents and teachers raises in-  
teresting questions about differences  
in what might attract and motivate  
children at school, and children at  
home. All four of these programs are  
more imaginative and sophisticated  
than most of the skills and drills stuff  
on sale to worried parents in W H  
Smith.

For home consumption, the pro-  
grams run on the Spectrum, and come  
with large colourful booklets. For  
schools they're designed for BBC and  
RM 480Z machines, and come with  
more extensive and open-ended  
teachers notes. (The schools series will  
be reviewed separately.) No doubt  
that Spectrum owners will be happy to  
put up with the limitations of the  
screen display - but in Special Agent  
some essential information appeared  
in barely legible form.

The booklets combine standard in-  
formation book stuff on roads, or  
spies, or balloons through the ages  
with information and activities linked  
to the programs. The actual instruc-  
tions on how to run the programs are  
too compressed, and often confusing.  
Keyboard overviews, showing which  
key does what, are helpful - though the  
one for Punctuation Pete labels two  
keys wrongly (the booklet is wrong on  
another two).

Once the programs are up and  
running, they run smoothly, and cause  
and effect link consistently and plausi-  
bly (not always the case in simulation  
games). Where the information in the  
booklets relates directly to the program -  
showing how a balloon works, or how  
you calculate fuel consumption in a car -  
they are clear and good, and the  
maps and charts are excellent. The  
educational intentions (courtesy of a  
team of teachers in Dudley) are also



## Market differences

by Virginia Makins

respectable, and the programs encour-  
age children to practise important  
skills - timetable reading, recording  
mathematical information, calculat-  
ing, planning and trading off variables,  
and so on.

But one suspects that all except one  
of the programs would work much  
better in a classroom than at home.  
Punctuation Pete certainly belongs at  
school: he's a delightful alternative to  
conventional punctuation exercises  
and children love watching him kick  
lower case letters into capitals, point  
out errors, and jump for joy when you  
succeed. He has little weaknesses - no  
scope for putting in apostrophes, scur-  
rying back along lines from right to  
left, instead of jumping from the end of  
one line to the start of another. But  
those are details. (The other program  
on the tape - a peculiar thesaurus, with  
associated anagrams and Hangman -  
looked pointless.)

Car Journey and Special Agent get  
away from drill and practice. But  
they're pretty hard work. At its most  
interesting level, Car Journey allows  
you to run a delivery service, choosing  
contracts to collect and deliver from a  
lengthy list. It's a game with plenty of  
choices, and it's challenging. But it

demand a lot of time off the micro,  
working out distances, costs and tim-  
ings. It could go well in a school, with  
groups of children, working on activi-  
ties, and teacher encouragement and  
enthusiasm. At home it's all a bit  
complex.

Special Agent is more exciting - you  
chase a spy around European cities,  
following intelligence reports, and  
keeping your own spy network intact.  
But again, the endless consulting of  
timetables and decoding of ciphered  
messages rapidly becomes laborious.  
In school, where relays of children  
could take over from each other, it  
might work well; at home it's a bit like  
one of those over complicated board  
games that families play once, on a  
rainy Sunday, then forget about.

The program that does work very  
well at home is Ballooning: it is  
challenging, but simple, all based on  
hands-on flying, and pretty addictive  
as you learn to work out the combina-  
tions of temperature, rate of fall or  
climb, and use of burner and vents, to  
fly the balloon where you want. It's not  
clear how much science children would  
pick up from it, but they need to  
imagine instruments and gauges, and  
it's far from mindless.

## bits

### COMPUTER FAIR

The first 'Schools Computer Fair for  
Teachers' will be held on Wednesday,  
November 9 and Thursday, November  
10 at the Regent Crest Hotel, Carburton  
Street, London W1. It is organised by the  
Educational Publishers Council. Apart  
from the three major hardware  
manufacturers, Acorn, Sinclair and  
Research Machines, 34 software  
publishers will be displaying programs  
which can be tried out and bought  
directly at the Fair. The Fair will be  
opened by the Minister of State for  
Industry and Information Technology, Mr  
Kenneth Baker.

A series of seminars will run alongside  
the exhibition aimed at both primary and  
secondary schools.

Further details from: Barbara Brookes,  
Exhibition Organiser, EPC, The  
Publishers Association, 19 Bedford  
Square, London WC1B 3HU. In our  
November 4 issue, the TES will be  
publishing an Extra on computing in  
education which will include articles on  
software and hardware publishing  
industry.

### SEVEN PACKAGES

The latest of the big publishers to enter  
the computer software market is  
Cambridge University Press, who this  
month announced that they are  
publishing software from Netherhall  
Software, a team of teachers and pupils  
from Netherhall School, Cambridge. The  
project is supported by the  
Microelectronics Education Programme.

The first seven packages - on cassette  
for the BBC Micro, but other versions will  
be available - are: Introducing Map Skills  
1 and 2; Balance Your Diet, which

enables students to analyse their diet  
and compare it with that of people in  
other countries; Moving Molecules,  
which explains simple kinetic theory and  
Charles' and Boyle's law; Watts in Your  
Home, which can be used to analyse  
energy consumption in the home; Maths  
Topics 1 which tackles symmetry and  
vectors; and Population Growth. The  
MEP subsidised price is £13.95 plus  
£1.62 VAT.

Cambridge University Press, the  
Edinburgh Building, Shaftesbury Road,  
Cambridge, CB2 2RU.

### IN-SERVICE COURSE

Coming soon from Longman is an  
in-service course for primary schools  
which is also a teaching resource for  
schools. Each of the five modules will  
contain a number of programs which can  
be used in the classroom. These are  
accompanied by course readers and  
other materials for the teacher on such  
subjects as The Curriculum and the  
Micro; Management of the New  
Technology in Schools and Creating Your  
Own Materials.

### SCREEN CASTLES

Teachers working with primary classes  
on the BBC's Zig Zag programme may  
like to know there is a software program,  
"Fletcher's Castle", available on how to  
build your own motte and bailey castle.  
Alixed number of soldiers and workers  
must build the castle in ten days. Six jobs  
are listed such as felling trees, finding  
food provisions and defending the fort. If  
too few soldiers guard the fort, some  
workers will escape; if insufficient food  
provisions, other workers will die of  
starvation. The program is great fun  
to do efficiently, but by the tenth day  
you may find your head spinning and all  
your men have died off. A nice venture,  
though, for a humanities programme.

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Circular Reasoning (BBC).

COMPUTERS: New releases include: Theories and Identification and Properties of Elements and  
FRENCH: A series of programs to help learn French, including Paris Trip, French Shopping and La  
Chateau - an all-French adventure game.

MUSIC: Use "Music Tutor" programs can be used in new classroom to help children learn to create  
music (BBC).

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## Ways with words

by Audrey Laski

Word Hunt  
Word Sequencing  
Sentence Sequencing  
Types: £11.50, discs £15.35  
For BBC Model B,  
Acorn Ltd, 4a Market Hill, Cam-  
bridge, CB2 3NU  
Price with Words  
Type £8.00, disc £9.50  
For BBC Model B  
Acorn Ltd, 77 Qualitas, Brocknell,  
Berk RG12 4QQ

For those of us who are trying to  
convince others that the computer has  
a great deal to offer to teachers of the  
young and dumb, it is a rather dis-  
heartening find that the available soft-  
ware may be downright computer-  
poor. The possibilities are endless  
and those currently producing material  
seem to be settling for the least  
interesting options; and giving far too  
little help to the teachers who might  
use their products.

One of the arguments of those who  
object to the use of the machine is that  
most of what one does with it can be as  
well done by hand. This is certainly  
true of Word Hunt. Every English  
teacher knows that there is no more  
effective way of settling a class down  
than to give it a word search to be  
done. The "Evening Standard Word  
Search" is no pupil who is even margin-  
ally literate can resist the challenge to  
find as many words as possible out of  
the letters of a given one, and pencil  
work is perfectly adequate  
motivate through the use of the com-  
puter, and it is hard to see what the  
point of computerizing this activity.  
The sequencing of words into sent-  
ences and sentences into coherent  
paragraphs is a game, more of a  
puzzle, and for the majority of  
children, this is just drill, and I do  
not think that the computer as a  
driller is any more novel than the  
vowel game, involving the insertion of  
the right vowel into short words with  
the encouragement of the little depend-  
ing man, could be a useful activity, but in  
the end it is all rather disappointing.

done; much more important, however,  
is the uncertainty about what the  
program makers are expecting pupils  
to get out of the exercises.

There were various possible  
strategies for re-arranging the word  
sequences to make sentences, some  
faster than others, some with more to  
do with one's recognition of basic  
sentence structure than others. If the  
object was to teach English sentence  
structure, I found it hard to believe  
that repeated practice with the  
machine would really tell the native  
English speaker much more than he  
already knew, though it might be  
helpful to the ESL learner. However,  
the object may really have been to  
enable children to develop swift sort-  
ing procedures; it would be valuable to  
know.

## IF YOU TEACH

If you teach in a Primary or  
Secondary School you know that  
most schools are now becoming  
involved with microcomputers. So  
why are some schools surging  
ahead with the use of micros,  
whilst others are in danger of  
falling behind or under-using  
a valuable resource?

Quite simply  
there's an  
inequality of  
"awareness"  
— a lack of  
information on  
how to best  
use the micro as a  
valuable teaching aid.

## BUT THERE IS A SOLUTION

Educational Computing is a monthly

## But Some Are More Equal Than Others

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education.  
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— the teacher — showing you how  
to put your micro to work across  
the curriculum.

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implemented the micro in the  
curriculum — what the  
Government's really doing —  
courses — vacancies — opinions —  
news and hardware — innovations  
— applications — and the  
future of education.

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# Tomorrow's world?

Barry Fox visits Berlin's giant exhibition of video, television and hi-fi systems.

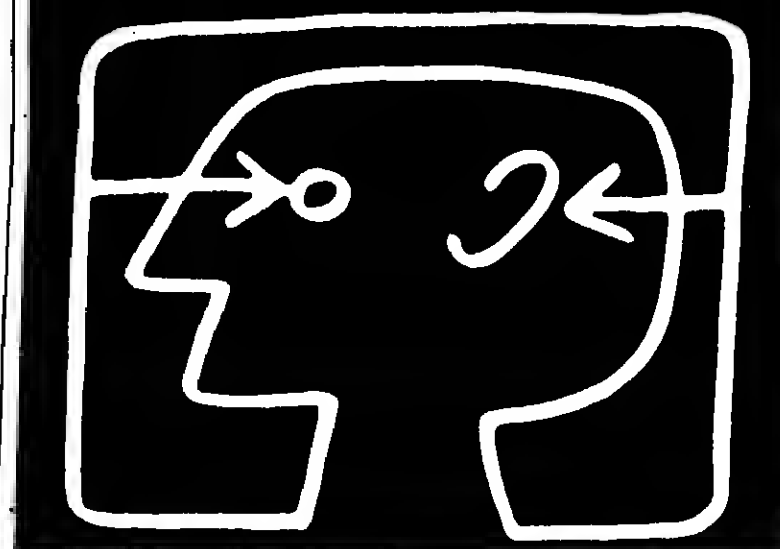
Early autumn is traditionally the time for hi-fi and video shows. These give the trade, press and public an opportunity to see what new equipment will soon be in the shops. The popular Harrogate Exhibition has grown too large and expensive over the last ten years. Trade support has slipped away, so the organizers have skipped a year. They hope to start again next year with a smaller, more homey event, like in the early 70s. Hopefully they will succeed. Britain needs an annual exhibition of all that's new in the crazy world of home electronics and entertainment.

Germany has a giant exhibition, the Funkausstellung or Radio Show, that is staged every two years in Berlin. In contrast with British shows, it gets bigger and more popular every time. Around half a million people attend, almost half of them from outside Berlin.

It is easy to see how the electronics industry in Germany has held its own against Japanese competition for longer than any other European country. There is intense national pride. Consumers buy German by choice and continental manufacturers like Philips, Grundig, IFT and Telefunken stage lavish displays. The V2000 video format has a 30 per cent share of the market in Germany. But the writing is on the wall. The Japanese are now winning there too. The most exciting sights of the show originated from the Far East, even though they may appear in our shops under European brand names.

At Berlin the Japanese manufacturers of the VHS and Beta video systems were demonstrating a technique for recording very high fidelity sound on a domestic video recorder using FM radio technology. Until now the standard of domestic video sound has been very poor. But Philips and Grundig, who promote the V2000 system, still haven't announced any intention of using a similar FM sound-recording technique. Sony was showing Beta Movie, a combined video camera and

## Video-TV-HiFi



recorder that uses a standard Beta format cassette, while JVC was showing VHS Video Movie, a similar but even more compact camcorder using the VHS-C miniature VHS cassette.

Meanwhile Philips could show only a bulky portable recorder that uses a standard V2000 cassette, with a video camera that is just smaller than the Beta or VHS camcorder, and Grundig's portable is a European version of the Japanese-made Funai-Tech-nicolour unit with a non-standard quarter-inch tape cassette. This format, CVC, has been on sale in Britain and the USA for several years but has never succeeded commercially because of strong competition from VHS and Beta.

The technology of the VHS and Beta hi-fi sound systems and camcorders is fascinating because it represents a considerable technical achievement. As it needs to be discussed at length, we will return to hi-fi video sound and camcorders in a future article on new video developments in the Audio Visual Extra to be published on October 21.

VHS manufacturers in Britain are already selling machines which run at half speed to double playing time per videocassette. Sony has not yet joined in the race, but at Berlin both Philips and Grundig were showing V2000 recorders that can be switched to half speed to offer up to eight hours playing time for a four-hour videocassette. From the start of the show Grundig was exhibiting an eight-hour machine to the public, with a recommended shop price of 2,098DM (just over £500). Philips was initially demonstrating its machine only to the press. In a back room. But before long they started showing the prototype to the public, with a vague promise that it would be available some time next year.

At with the VHS half-speed machines, picture quality is acceptable but sound very poor. Grundig and Philips half-speed machines have manual switching for speed change on replay, whereas the VHS half-speed machines adjust automatically. This can be very useful if the recording speed has been switched halfway

through a programme as it is being taped off air. One worry at Berlin was the sight of small Hongkong firms offering apparently unlicensed videocassettes, that is to say blank videotape cassettes made without the approval of Sony and JVC, who attempt to control the standard of tape sold for the Beta and VHS systems. Sub-standard tapes will produce jumpy pictures, fuzzy detail and drop-out blips like snow. It may also be too abrasive and damage the video heads. Another worry was the sight of Hongkong-made replacement head drums for videocassette recorders. These are cheaper than authorized replacement parts but likely to prove unreliable.

The Japanese continue to make everything as small as possible. Once it was only electronics, but now they are miniaturizing mechanics with precision and skill previously associated only with the Swiss watch industry. The incredibly small camcorders are a classic example. Sony has built a portable Walkman cassette recorder that plays a mini-size audiocassette, but is itself no larger than the plastic box in which the cassette is housed.

This is achieved with a single battery and a new kind of motor that uses film coils. Aiwa has a portable radio styled to look like a cigarette lighter. Through headphones the sound is astonishingly good. National Panasonic has an interesting new idea for making a portable colour television set with a six-inch screen, that looks like a flat handbag. Three tiny television tubes, red, green and blue, together project a full colour image on to a translucent screen that hinges up to the handbag body when the user wants to watch television.

Videodisc is in very low profile. Although Philips and Pioneer were showing domestic Laservision players, it seems increasingly doubtful that this system can take off in a big way for home use. Already videocassettes offer longer playing time, and the disc has to be turned over halfway through a feature film. Of course a disc cannot record, only replay. Picture quality from domestic videotape gets better all the time. Before long there will be hi-fi sound from VHS and Beta, which leaves low cost only real advantage of disc over tape. But tape prices are now starting to fall. RCA and Philips are soon to launch the CED disc system in Britain, with players costing under £200 and feature film discs under £13. Profit margins are low, or non-existent, it costs around £5 to make a disc.

The future for Laservision looks healthy only in the industrial market.

Philips were showing a Laservision player with an integral computer that can be used in conjunction with an educational programme. JVC was demonstrating the third videodisc system, VHD, in a similar way. An encyclopedia of car repair, maintenance and car care, the VHD can be called up chapter by chapter as a working textbook, every year and every public domain, the likely scenario for videodisc becomes clearer. The RCA by their own library of feature films, the market because its picture and sound quality cost too much and once the VHD will be offered for home and educational use and will challenge Laservision in this field. Although, however, the Japanese VHD players could win over Laservision for reasons: it is backed by the marketing and software clout of Thomson and the same discs can be used on both American and European players.

Compact Disc, the mini audio version of Laservision, looks all set to succeed. At Berlin almost every manufacturer was showing a Compact Disc player. It is disappointing that although the system was first launched by Philips in Europe, much of it is now being made by Japanese firms. The Japanese music industry has embraced CD with open arms and is making its players available over more exotic. They are selling CD for novelty, convenience and compactness, as well as sound quality. The idea of a five-inch disc that is more immune to fingerprints and surface dust appeals. The fact that hi-fi enthusiasts are unhappy at subtleties of the sound is legitimizing for mass market sales. Hi-fi buffs only hope that the system's problems will be ironed out over the next couple of years.

Finally, the biggest surprise of the show was a mystery absence. Sony one had been expected to witness a launch of its new 8mm video system. For this year all the leading electronic firms around the world agreed on a new standard for portable video in a tiny cassette of 8mm tape. The British press catalogue even showed a picture of an Agfo 8mm cassette and several manufacturers, including Philips, promised to demonstrate prototype camcorders. But the show opened with no 8mm equipment on view. Sony the sponsor of the video market had quickly agreed that they would prefer to continue making money from existing video systems, before entering the market with a new and incompatible format.

The Amateur Naturalist  
Channel 4  
Friday, 8.00 pm  
Follows a New World  
BBC  
Monday, 7.10pm

For a few weeks we have the choice of two grizzle-bearded naturalists on our screens. David Bellamy came to fame as a TV personality and we have become accustomed to a regular series from this most unostentatious of professional naturalists. Gerald Durrell, on the other hand, though by no means a newcomer to television, is more widely known for his books. A naturalist from boyhood, does he still consider himself an "amateur"? In any case, nowadays, such definitions are blurred, and screen as on it. Certainly the attitudes of these two naturalists are unrelated to their professional status. Broadly speaking, David Bellamy takes a whole earth view, with conservation of habitat and self-renewing resources a priority, while Gerald Durrell puts his main energy into conservation of species, particularly insects.

The first Gerald Durrell programme was set in Corfu where he spent his childhood and wrote his first, funniest and best book *My Family and Other Animals*. This is a book which intimately communicates a youngster's excitement and obsessive curiosity about wild creatures, something the series describes but falls short of conveying. The presentation is too relaxed and slow paced to create that kind of excitement. Certainly Durrell's still presence and cultured, teacherly tones are a long way from Bellamy's volatile excitability.

The paradox is that Bellamy's exuberant boyishness of manner: gesticulation, jolliness, punning - works in a way which makes it possible to bring to us a considerable breadth of vision and ideas. He would never get away with anything of such intellectual richness with a straight, no nonsense presentation. Don't be misled by appearances, here is a television presenter of formidable skill who brings together the threads of science, sociology and ecology in a comprehensible and popular form. Bellamy is one of the few writer-presenters on television who can make adults think.

In this series *Bellamy's New World* he is supported by unusually good camera and music, once again gets away with murder, brilliantly. In this Monday's programme for exam-



## Two styles

Francesca Greenoak observes the Durrells and Bellamy in their natural habitats

ple, we find Bellamy on an Oklahoma prairie juggling with the catch phrase "grass as high as an elephant's eye" apparently just for the fun of it. The camera gives us a breathtaking shot of his horse drawn cart moving all out against the sky line and the music takes up the theme of "Okie-okie-oh-ho".

This lighthearted little episode takes on the different aspect of a few minutes later when we hear of fossilized mastodons found on such a prairie and traces of those very grasses still visible on fossilized teeth. The Bellamy team knows he is parodying, and they out-parody the comedians, camping it up with skill and professionalist and then romping home with a serious message. What you remember is not Bellamy's performance, but the animals of the prairie, prehistoric and present, and

the prayer for long-term viability as against short term profit: the self-sustaining grasslands against the Westabix landscape. A message worth stating your name on, worth going to prison for, but dispensed with a panache and lightness of touch which engages adults and children alike.

The obvious suspicion is that Gerald Durrell is being promoted as an antidote to Bellamy's sedate didacticism in such a contrast. Much of what he says, he delivers seated, crooked comfortably on a chair or a rock. At times the pace was a touch too relaxed: observations about much of Corfu being still unsolved would have been better left inside the tourist brochure. In other places I had a sense of opportunities missed. Musing on whether house-martins on the church were in a direct line of descent from

those he watched as a boy, is commonplace; the amateur naturalist should surely admit that from what we know about house martins' breeding habits, they probably were.

The parts where past and present were linked together knowledgeably, came alive; spotting the agama lizard which in boyhood days he'd found only on a single cliff face and which nowadays can be seen throughout the olive groves. The presentation is shared jointly by Gerald and his wife Lee and they make a harmonious and refreshingly equal partnership.

We too Lee, also a childhood naturalist, observing a carmine jumping spider, suitably by means of nothing more technical than a magnifying glass. Perhaps the best moment so far occurred as the couple were making their way down a nostalgic path when the bulky and no-larger-than-young Durrell suddenly darts aside and returns with a glass snake which both fondle admiringly as Gerald recounts eschape Greek version of the St George story which identifies this pseudo snake with the dragon. Throughout, this series unobtrusively but firmly sets its face against prejudice: that against snakes (or slow worms), flies, spiders, rats - and women. (Natural history is still male-dominated.)

The amateur naturalist is encouraged to wonder, observe, take photographs and sometimes to capture. The series dwells on the practical activities, stressing the importance of inherent skills and simple equipment such as yoghurt pots and jam jars. However, talking down to years to children and novice naturalists, the Durrells cannot shed their years of experience - or physical accomplishments: a microscope or trap camera. But that's as it should be. As child naturalists they had sharper senses, as adults they have more gear.

They demonstrate a fellow feeling (if a dominating one) for the creatures with whom they share their environment, whether this is the countryside of Corfu or the alleys of New York City, and they show a bold disregard for conventional proprieties even in the face of the unnatural demands of television.

In a memorable sequence, we follow Gerald cooking the breakfast eggs and sitting down beside Leo at table, not in a chair but to deliver a short lecture to camera, of which Lee seems, untypical, to be unaware. The camera then turns to Lee who pushes her egg aside and with resourceful eccentricity will worthy of *My Family and Other Animals* produces a jam jar and a vase and makes an insect capturing pot.

## briefings

radio & tv

For schools

**STOP, LOOK, LISTEN**  
(Monday, 9.55, Wednesday, 11.10 TV)  
The first of two programmes for seven to nine years old slow learners about the police.

**ZIG, ZAG**  
(Monday, 11.00, Wednesday, 14.40 BBC2)  
"Hungry Times", a play in two parts by Ian Taylor, marks the welcome return of drama for eight and nine year olds. Consolidates the information of the previous programmes and presents the story of a group of Saxons after the Norman conquest.

**VOIX DE FRANCE**  
(Monday-Friday, 00.30 VHF4)  
Series for use selectively with O and A level students. Includes short plays, reports, documentaries, a radiovision programme on Rouen and a topical discussion. Teacher's Notes are essential.

**BELIEVE IT OR NOT**  
(Tuesday, 9.30 Thursday, 10.50 TV)  
Two new programmes on Christianity feature the role of the Anglican church through the eyes of the priest and his congregation. Next week the over eleven look at the differences between the Roman Catholic and Baptist churches.

**HISTORY: NOT SO LONG AGO**  
(Tuesday, 14.00 VHF4)  
The activities of a commercial radio station help nine to twelve year olds learn about the development of road transport. The Motor Car introduces Dave Double D Clutch, the show's rowing reporter and Jerry Carr who gives technical tips.

**NATURE**  
(Wednesday, 14.45 VHF4)  
"Birds in Winter" is a unit for eight to ten year olds concentrating on starlings, the tufted duck and birds which feed at a garden bird table.

**ENGLISH FILE**  
(Friday, 14.30 BBC2)  
Selected from the Book Programme for 14 to 17 year olds, an interview which takes Brian Moore back to his native Ireland to discuss the effect Ireland has had on his writing.

## Continuing education

**THE ORESTEA**  
(Saturday, 20.00, Sunday, 19.15 C4) (see p 25)

**MATHEMATICAL THINKING**  
(Sunday, 11.20 BBC1)  
In response to the Cockcroft Report on the state of maths teaching in the country, Norman Gower and Nick James of the Centre for Mathematical Education at the Open University, extend their OU courses to help teachers guide their children through new ways of seeing basic maths.

**THE ARABS**  
(Monday, 21.00 C4)  
A new documentary series on Arab life and thought begins when Basim Musallam, a Lebanese historian, goes on a journey through the 15 nations which make up the Arab world.

**PEOPLE FIRST**  
(Wednesday, 12.30 BBC2)  
This series aims to help the parents of mentally handicapped children, on how to cope with changing human relationships as children grow up. Can they marry and live on their own? Where should parents turn for help?

## RML offers

Paul McGee writes:  
The second part of the scheme is aimed exclusively at primary schools.

About 20 per cent of schools taking part in the DoI micro-in-primary schools scheme have chosen the Research Machines 480Z. The heavily subsidized price made the machines good value, but many schools must be worried at the expense of purchasing further RML equipment at full price.

Primary schools need discs if they are to cope with LOGO programming and larger-scale activities such as data processing and computer managed learning. Cassette loading and storing are too slow and ROM packs, which speed the loading of programs, cannot be used to store LOGO programs for later sessions or teachers.

RML have produced disc drives for the 480Z, and are making primary schools an offer which they claim may be worth a million pounds. They are offering a single drive-disc unit for the 480Z for £299 and a double drive-disc unit for £549. This is a saving of about 40 per cent.

The drives are double density and can store 328K on a single drive (£299)

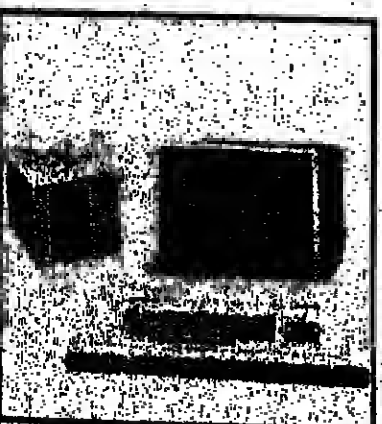
and 658K on a double drive (£549). The disc controller allows the drives to read single and double sided discs which have been stored in either single or double density mode. This means that even the oldest 380Z disc can be read, thereby giving easy access to all RML software produced by RML or other suppliers.

The offer is limited to primary schools which chose the 480Z as part of the DoI scheme. Orders have to be placed with the i.e.a. who are also responsible for ordering the necessary upgrading of the machines, fitting the new ROMs and returning the old ones. (These upgrades also allow 80 character mode and contain BASIC version 5.4 in ROM.)

This is undoubtedly a very attractive offer to those schools or i.e.a.'s already committed to RML, but others may still take some convincing. The 480Z and disc drive will be beyond the reach of most primary schools. An obvious simple improvement would be to allow two computers to access the same disc drive under software control. There would be no need for complex network software if

only two computers are used and this would enable schools to approach the purchase of further 480Z's with less trepidation about the financial burden.

However, in the future, if many machines have in-lieu access to a disc, then the whole school must be networked or the cost per class will be prohibitively high. It is hard to imagine many primary schools wanting networks and it is, therefore, likely that RML's pricing policy will make them increasingly uncompetitive for primary schools. Primary schools should also take note of the software offer described above.



DoIben and Associates. They have been produced by Leslie Ryder, former Director of Learning Resources for the Inner London Education Authority.

The subject areas are accounting, chemistry, English, physics, French, mathematics, geography and 'learning to learn'. The development programmes vary in length from 60 minutes to 90 minutes and cover say the producers

## Light on leaves

Leaves of Green, 2nd edition  
16mm sound colour film  
13 minutes running time  
Produced in the USA by Stephen Filma, Los Angeles  
Sole acquires Educational Media International, 25 Bolleau Road, London W5 3AL.

This is a very attractive and beautiful shot film to introduce young children to both the value and the aesthetic quality of green leaves. It covers the importance of leaves to all animal life. Two seed leaves are plants. The basic structure of a leaf is described and explained in simple terms. The film shows the movement of leaves on a plant and the way they are adapted to their environment. The film is a response to light. The way leaves are made clear and the way they function to leaves perform a food storage and defence function. The film is a beautiful and informative introduction to the world of leaves.

Photographically, this film is a delight. Although it is a science film, it is also a work of art. The film is a beautiful and informative introduction to the world of leaves. The film is a response to light. The way leaves are made clear and the way they function to leaves perform a food storage and defence function. The film is a beautiful and informative introduction to the world of leaves.

## Focus on war and peace

by Jessica Saraga

Flashback  
Channel 4  
Wednesday, 6.30 pm

The first war in movie history, against the Boers in 1899, found people happy to make their fortunes marketing pictures of departing troops, strong in the great imperial values of endurance and self-sacrifice.

When the action shots weren't exciting enough because of the difficulties of manoeuvring a three-quarter ton camera where it was all happening, they were equally happy faking it all with a cast of friends and relations in a field somewhere in England. For a really dramatic front line sequence, they went good for morale letters for all the soldiers and the wives and the daughters of the soldiers of the Queen to see the raising of the flag at captured Bloemfontein and the naval troops from the Transvaal marching in.

Lady Smith's march, in the face of a siege, was a sight to behold. The camera was in the front line, and the soldiers of the Queen to see the raising of the flag at captured Bloemfontein and the naval troops from the Transvaal marching in.

There will be more, examines the propaganda use made of the biopics of the Boers and the British. In a few American plans are specifically identified. However, the comparison is at times unnecessarily complex, introducing terms such as "propaganda" without an adequate explanation and preferring the term "cynicism" to the more descriptive "sneer".

to Vietnam and the Falklands the whole thing may seem fairly anodine. Perhaps we're unready to applaud the inhumanity of the Boers of the early years of this century; research, retrieval and preservation is not so advanced that we can take it for granted that history that long ago can be re-run.

So first looking at film of the early century's dramatic events is like first looking into Chapman's Homer - there's a whole new world there, a world where the protagonists are real, not the all too familiar actors in the feature films we've become so used to, or nameless Boers and faceless Tommies peering mistily out of old stills. Here is the Buchenwald Veld and the Beden-Powell huts, mule trains and ox carts fording wide rivers, and war being still fought on horseback.

The century is still there in the First World War too, now joined inconspicuously by just a few soldiers on bicycles, beating the horses hollow for manoeuvrability but doomed to be no more successful than they were when the earth turned to liquid mud. And there for real is the British Expeditionary Force, Kitchener's, Fred Kamo's Joe Soap's Army marching without fear, the Ragtime Infantry in person. Mustering at the Somme in the summer of 1916 they file past smoking, smiling at the camera, only a few weeks later still flooded in sunlight, they sit in silence while their wounds are dressed at Mindon, or limp back behind the lines with a new bleak exhaustion in their eyes, as if they've suddenly lived a century, or been to hell and back, which indeed it seemed as if they had. Half a million died on each side before the rains came in November and put a halt to the offensive.

The "Battle of the Somme" film, from which these extracts are taken, was subject of course to censorship. Edited as a documentary under the supervision of the War Office and the Army, its captions were written by military intelligence, and Lloyd George himself provided an introduction which was read out by cinema managers before each showing. Hundreds of thousands flocked to see the film in its first week; a new propaganda medium had been born.

The emphasis is definitely on morale; boxes of munitions are carefully identified for the benefit of workers who, most of them, German dead are shown but not British, the padre raises spirits and drinks and cigarettes are offered to German prisoners. The scale of the slaughter, though, isn't revealed, but then even while the film was first showing there was still a theoretical chance that the 16 mile push would be successful.

Knowing what we know now about total casualties at the Somme and the eventual cost to Europe of those four years war adds a bitter irony to the footage and an ironical poignancy to those weeping, smiling.

As usual, Channel 4 is to be congratulated on its coordination with other outlets; you can see more of these films at the moment at the Imperial War Museum, and you can buy "Flashbacks" - collections of stills from them - from the National Extension College. If ever an argument were needed for saving decomposing film, Flashback provides it. No matter if the medium has been used by profiteers and propagandists, some of the truth of the past will shine through to move and instruct us.

## Reactions to the micro

The Open University "Micros in Schools" packs - in-service courses at many different levels - are now becoming available and in order to provide a flavour of the topics being covered by these materials, the BBC will be broadcasting two specially abridged versions of the accompanying videocassettes. The cassettes themselves are designed to provoke discussion among practising teachers who are studying the packs. BBC4 Educational Software and PS43 Micro Electronics.

Quality Software? looks at how educational software is produced by ITMA, the Investigations on Teaching with Microcomputers as an Aid to Teachers project at Plymouth. The Plymouth software authors describe how some of their original ideas for software evolved and who was involved in its design and testing. The role of the teacher is highlighted by the programme which shows a classroom trial. The programme aims to help teachers make an informed judgement on existing software and influence the production of good software.

The *Blackboard Experience* traces the introduction of the OU micro-electronics kit into Northampton mid-school. The programme records the teachers' initial reactions to the innovation.

The programme shows the progress which has been achieved a month later and reveals some of the changed responses amongst the teachers.

Quality Software?  
BBC2 Wed 5 October 13.10 to 13.35 repeat BBC2 Wed 19 Oct same time.  
The *Blackboard Experience*  
BBC2 Wed 12 Oct same time, repeat BBC2 Wed 26 Oct same time.  
Suzie Rodwell

## CAREERS EDUCATION FOR 'A' LEVEL STUDENTS

Write to: EARG, Resources and Technology Centre, Brook Hill, Ely, Cambs for details of MAP, the new course available from Cambridge.

## notes

**REVISION**  
The revision industry expands even further this week with the launch of Clever examination revision videocassettes in eight major subject areas by Hazel

the basic revision area from which examination questions are normally selected.  
Further information from Hazel Dobbin Associates, 25 Thurloe Street, London SW7.  
**MUSE MOVES**  
The new address of MUSE (Microcomputer Use in Education) is PO Box 43, Hill, Hill 2HP.



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# EXTRA

## CRAFT, DESIGN AND TECHNOLOGY



## Infant phenomenon

George Hicks offers a personal view of the sudden popularity of CDT and attempts to define priority needs.

Craft, design and technology is now becoming a general interest that it is sometimes difficult to realize that it is still in its infancy. As an area of the curriculum its development has been slow and it is only comparatively recently that its contribution to the curriculum has been fully recognized. Such recognition has been brought about by the heavy demands already made on CDT teachers who are still working at varying stages within that development.

Acknowledging such demands, this article looks briefly at the origins of CDT, examines the present stage of development reached, considers the reasons for its sudden popularity and attempts to identify priority issues for future attention.

The emergence of CDT from the traditional practices of handicraft has demanded from teachers a belief in the educational potential for their subject, and perhaps more importantly, their own creative abilities of pupils and in their own ability to use these profitably while continuing to develop craft skills. Both have been justified within the last few years. When prompted and encouraged by imaginative teaching, pupils of all ages and abilities have responded with enthusiasm to the challenge of design based courses and there are many examples of quite outstanding achievements.

The relevance of CDT to the wealth-creating sector of industry - identified initially by its content, which draws heavily on the area of technology - is readily acknowledged. It would be quite wrong, however, to consider the sudden growth of interest in this subject solely in terms of its relevance to industry. This is a fortunate by-product.

Indeed, if CDT has direct relevance to industry it is through its methods rather than its content. The gradual refinement of this method of teaching throughout the transitional period from handicraft has been the most significant factor in the development of CDT. In outline, this has moved the earlier emphasis away from directed group teaching, which aimed to develop specific craft skills, towards the creation of learning opportunities which encourage pupils to respond individually to a range of practical problems.

In such situations the skills associated with problem solving are taught, knowledge used and craft skills acquired only as they are needed to detail, make and thereby evaluate the merits of the proposed solutions. It is hoped that the skills, knowledge, attitudes and sense of personal values developed while working with materials in this way have a particular significance for individual pupils. The value of CDT therefore lies in the

contribution it now makes to the education of all pupils, and it is the recognition of this which accounts for the sudden growth of interest shown rather than any promise it may hold as a possible aid to economic revival.

The origins of CDT stem from a growing concern among teachers for the sensible and sensitive use of materials when solving practical problems. It was the unifying activity of designing such solutions which did most to erode the earlier subject barriers of handicraft, as it called for direct experience of a range of materials in order that the most appropriate might be selected for any specific task.

From this has come an awareness of the possibilities afforded by CDT for the development of aesthetic sensitivity, cognitive and motor abilities through the central activities of designing and making. This was the philosophy of the earliest CDT pioneers but not all teachers shared that conviction or had the confidence to work in that way. Teachers were confident of the ability to teach craft skills well, but were less certain of their ability to keep craft standards secure while striving towards wider objectives.

Consequently, developments since then have been patchy, and the scale of the national commitment to work of this kind has been difficult to quantify. It is only since subject criteria for the examination of CDT at 16-plus have

been nationally debated in recent months that the full measure of agreement has been reached.

This exercise produced a clear statement of subject intentions, articulated in a manner which has revealed agreed general educational aims and objectives rather than those of narrow, specialist subject areas. The opportunities to rationalize specific lines of subject development, which this criteria exercise provided have been well taken. It has proved to be a very timely exercise as it would not have been possible to produce a subject statement of this quality any earlier. Hard-pressed teachers have needed the time it has taken to identify and work through their own priorities within a fast changing subject before deciding in favour of a commitment to design-based work.

The final proposals of the Joint Council's Working Party for a common system of examination at 16-plus in CDT suggest that this consensus has now been reached; that the commitment is total and that the future contribution of CDT to the education of all pupils, irrespective of age, sex or ability, is now clearly defined and likely to be more positive as a result. The introduction to these proposals states:

"The aims of any course of craft, design and technology should reflect the complex abilities required to exercise control over the man-made world but the common core equally can be identified as designing and communicating, making, testing and evaluating."

As similar exercise undertaken by the Assessment of Performance Unit of the DES to look at the criteria relevant

to the development of technological capability in schools reached similar conclusions. Both projects identified the skills of "Investigation", "Invention or innovation", "Implementation" and "Evaluation" as being fundamental and affirmed that the knowledge required could be structured within a three-part framework of "control", "energy" and "materials".

In addition, both identified the need to develop in pupils the ability to exercise value judgments of an aesthetic, technical and economic nature when making design decisions in connection with the production of artefacts or systems for human use. The similarity of these conclusions is significant. It affirms, for example, that the study of "technology", as with any other specialist area within the CDT range, must be essentially practical in nature if the related skills are to be developed while drawing on specific knowledge from the framework shown. Similarly, it shows that the work of most other areas of the curriculum has relevance to the development of the skills and knowledge involved, and illustrates further the integrating qualities of CDT as a learning process.

It is these qualities and the teaching methods which produce them that are now attracting many primary teachers to activities of a CDT nature with encouraging success. With the earlier craft priority for specific types of material experience being no longer recognized and primary methods being so closely akin to those used in design technology, work originally termed "craft" or "science" is now developing naturally in some parts of the primary curriculum as "primary technology" which successfully combines the two. At this level, a pupil's empirical approach both to materials and to problem

continued

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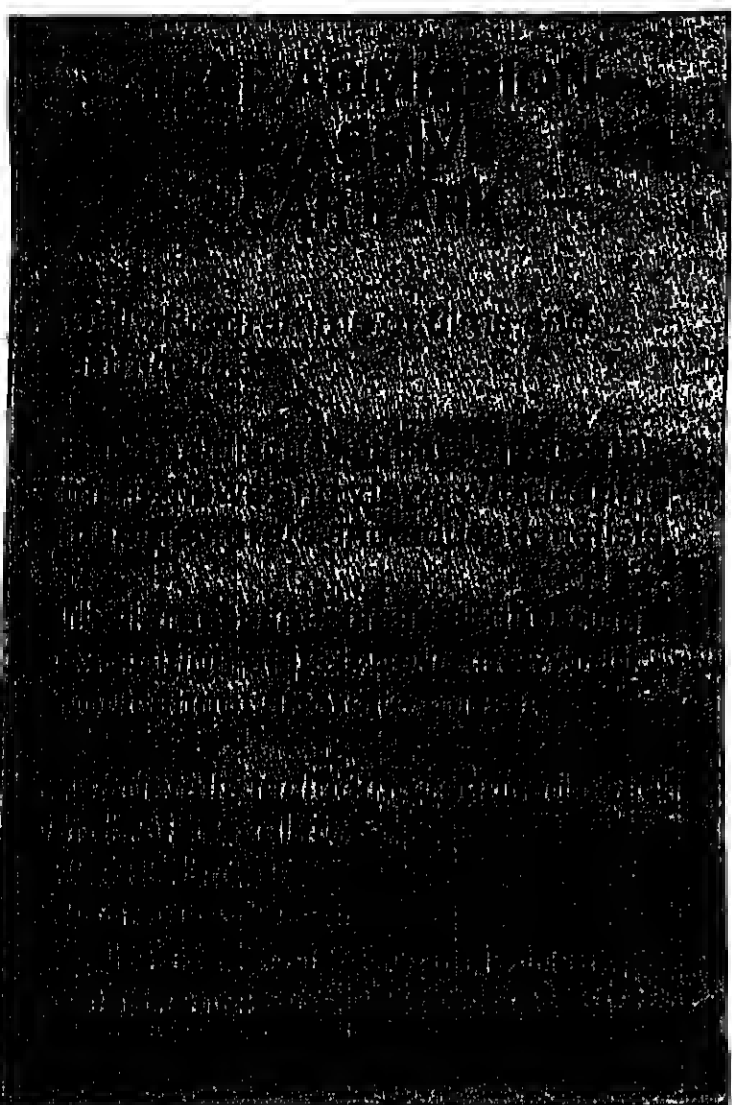
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## Infant phenomenon

continued

solving is a natural aid to understanding. When craft skills are acquired so they are used to test and modify the ideas as they are put into practice, making their objective evaluation possible and revealing the level of understanding reached.

Later on in secondary schools, as more demanding problems are met, the techniques of problem solving are extended to include those skills identified by the APU as representing the composite skills of design ability. In such cases both aesthetic and technological considerations have to be resolved and their solutions successfully combined if the final outcome is to be acceptable to the user.

At this level, craft skills developed across a range of materials play a dual role, fulfilling both a technical and an aesthetic function as they are used to refine and ultimately express the design intention. Such is the natural development of CDT, from the earliest primary phase in which the aim is to develop in pupils a sense of pleasure and excitement that comes from a practical approach to problem solving, to the secondary phase which aims to build on this while developing those complex skills and abilities referred to earlier in the introduction to the JCWP paper. A subject development on this scale has understandably taken many years.

A paper recently prepared by the CDT committee of HM Inspectorate, but developed in association with teachers and i.e.a. advisers over the last five years, states clearly the present subject position. Entitled *CDT A Curriculum Statement for the 11-16 Age Group*, the paper, stands as a preliminary contribution to the second edition of the "HMI booklet" *Curriculum 11-16* and is now available upon request from the Information Division of the DES. The introduction to this paper emphasizes the interrelated nature of craft, design and technology from the age of 11 plus onwards and affirms that a CDT course will not develop the full potential of pupils if any one aspect receives little or no attention. The remainder of the paper shows how this might be achieved. Taken with the work of the APU and the JCWP mentioned earlier, it supports the argument of the latter for a nationalization of the many "umbrella" titles of CDT to those recommended for examination at 16-plus namely:

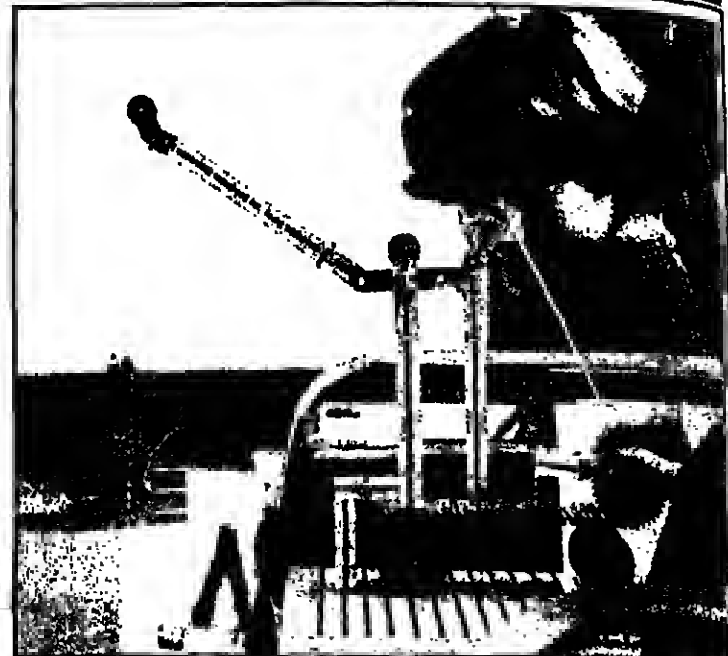
- CDT: Design and Realization
- CDT: Technology
- CDT: Design and Communication

In addition to overcoming the erratic subject development mentioned earlier, this recommendation of the JCWP goes further, by stating clearly that CDT is to be seen as the central subject which offers three separate courses for specialist study in the upper school. Each course would therefore share common subject aims.

This represents a further advance. If accepted in principle, it would help teachers by simplifying course structure up to the age of 14-plus. Irrespective of school or i.e.a. variable, courses to this level would need to offer general design experience while developing skills and concepts as a basis on which any one of the three specialist courses could be built.

The most significant implication of this recommendation, however, relates to the specialist area of Design and Communication and the opportunities this affords for a reappraisal of both the content and methodology of current "technical" drawing courses. This work of the JCWP is significant and it would seem to mark both the end of the first stage of subject development and possibly the beginning of the next. Its clear statement of aims, objectives, content, structure, course developments and assessment criteria embraces all earlier initiatives and gives CDT the sharp focus it needs.

To emphasize on this existing teaching programmes might need some adjustment in order to meet such criteria. However, the timing of such readjustment is most appropriate when considered in conjunction with the recent national technical and vocational education initiatives (TVEI) developed across the 14-19 age range and with the proposals for vocational examinations at 17-plus (CPVE).



Satisfaction in solving a practical problem aboard a Bedford bus - page 44

Although CDT constitutes only one part in the broad provision for TVEI and CPVE, it is nevertheless an important ingredient and will have a valuable part to play in vocational courses of this kind.

The next stage of subject development will centre on this 14-19 phase. Specific types of experience comprising both group and individual project work will need to be structured within the 11-16 framework to accommodate the later needs of pupils pursuing CDT within either TVEI or CPVE courses, but this need not be incompatible with 11-16 aims. If pupils are to opt for TVEI courses at the age of 14-plus from an informed position - and many more will be invited to do so in 1984 - they need to experience before then the stimulation that comes from meeting the challenge of designing and making within CDT and to see the relevance of such experience to all aspects of adult life.



Making CDT available to girls is one of the many challenges facing teachers

Similarly, CDT courses offered within the TVEI scheme will need to sustain this motivation of pupils while preparing them for possible careers in the manufacturing, servicing or marketing industries.

Regardless of its close parallel to the practices of industry, the central thrust of CDT must always lie in the learning opportunities it creates for pupils. This is its strength. Its aims must include the continued development of imagination and inventiveness; its methods must reflect the scope it has for individual learning; for the development of design skills and the related skills and attitudes which are adaptable to the needs of modern life.

However, the significance of these skills to the needs of industry must not be overlooked. It would seem timely therefore to suggest that when selecting content for newly structured courses, a closer liaison between schools, industry and local institutions of further and higher education (FHE) would prove beneficial. A recent HM survey of "technical drawing" type courses in schools showed that some schools are already doing this.

Industrial sponsorships for school design competitions and the increased support given to all levels of CDT by the Department of Trade and Industry give great encouragement. They show how well the promise of CDT is received and respected for its contribution to date. The need now is to communicate the message of its educational significance more widely in order to make CDT available to a greater number and range of pupils, especially girls. This is but one of the many challenges still facing CDT teachers.

Increased demands will arise as expectations of CDT are heightened. Having now shown what is possible in our schools and colleges, the level of basic expectation has been set. It will be difficult to sustain this while continuing to increase the range of activities that comes with every new development in materials or information technology. Unsupported by appropriate research and restricted by resource limitations, this presents a formidable challenge, but one which CDT teachers have proved themselves willing and able to meet.

Enthusiastic CDT teachers and responsive pupils will always work near to the limits of technological invention. It is important that they should be encouraged to do so. In-service opportunities need to be provided to make this possible. The British Schools Technology Institute, launched recently with the aid of the DTI will give much needed support in this respect. The immediate pedagogical needs of all CDT teachers, however, appear to centre on furthering development of teaching methods which expose pupils to problem solving in a manner which encourages individual responses coupled with a refinement of assessment strategies.

This would increase creative opportunities and provide more detailed profiles of individual abilities and interests than those currently in use. During the earlier days of CDT, many "design briefs" which directed pupils to the problem in hand by way of one or two lines of printed text.

Often these steered pupils away from teacher-conceived solutions towards responses to open-ended problems. Assessment in such cases caused little difficulty. As teaching sensitivities have developed with experience, it has proved to be inadequate in order to develop the creative abilities, pupils must be encouraged to respond in a manner which reflects their own perception of the problem, and assessment needs to be developed to accommodate such diversity. This is an important point as it distinguishes CDT further from its earlier, narrower, age and also from the practice of industry. If schools are to work closer with industry as suggested earlier, it will be increasingly necessary for a point of difference to be understood. Their respective aims must not become confused as working increases. The methods of working increase, the need and interests of individual pupils and those of future employers are likely to be better served if educational goals are pursued through CDT rather than the converse.

G. A. Harker is Sub-Inspector, HM Inspectorate.

## At your service

### Nick Baker reports on ESPI

From his tiny office in the middle of the Loughborough University campus David Girdler runs ESPI, the Educational Service of the Plastics Industry.

In 1975, the plastics and rubber industry decided to increase its links with education and increase awareness of plastics in schools and colleges. ESPI (formerly ESPRI, the Educational Service for the Plastics and Rubber Institute) is not devoted entirely to the plastics industry and is sponsored by companies through the industry's training board.

ESPI handles thousands of enquiries and requests for teaching materials a year from craft, science and careers teachers as well as from pupils and students. "Plastics is one of the few growing industries", explained Girdler, "the all-plastic electric kettle and the all-plastic bicycle are already realities and the all-plastic electric car (including motor) will be in a matter of years."

ESPI has recently run in-service courses for teachers of both craft and science on the theory and practice of plastics. Teachers were able to get "hands on" experience as well as listen to guest speakers from the industry.

The most popular service the ESPI provides is its distribution of teaching aids, learning materials, examples of plastics materials and careers information. The choice of material is wide enough to cover an age range from junior school to college of further education and in some cases beyond.

ESPI can offer guides to the use of plastics with specific industries like food, furniture, medicine and building. It also produces a useful booklet, "Teaching Aids in Plastics", which catalogues all the teaching aids available. This includes information on where to find films, videos, slides, as well as free information from the industry. Another booklet provides information on text-books dealing with various aspects of the plastics industry.

ESPI can also provide advice on how to handle plastics safely in the workshop (something that David Girdler believes worries craft teachers with little experience of plastics in schools), careers at all levels, and a resources box.

The resources box, which costs £17, is intended for use in science, craft, home economics and even humanities lessons. It contains samples to illustrate different plastics processing, worksheets, booklets, and careers materials. The samples have been produced in such a way that they can be used as the basis for a permanent display.

One item of which David Girdler and ESPI are particularly proud is a new tape slide set (available Christmas) dealing with the history of plastics, the different processes, and plastics work in six schools, ranging from boat building to reproduction of Ancient Egyptian stringed instrument.

If students and teachers are unable to find the information they want using ESPI's wide range of printed material, they can also use its postal enquiry service. ESPI can supply, free of charge and usually within a matter of days, answers to specific problems encountered in the study of plastics.

ESPI is particularly enthusiastic about making the study of plastics more acceptable for the purposes of examination. Although many examining boards offer it as an option within craft, design and technology courses, too few teachers have the resources or the experience to take up that option. David Girdler believes this is a great pity for he is convinced that schools and, in particular, CDT teachers, "are the material of the future," he says.

For more information on the plastic industry, write to ESPI, Department of Creative Design, University of Technology, Loughborough, Leicestershire LE11 3TU. Tel: (0532) 231065.

## EXTRA

## Vital but vulnerable

The place and development of fashion in the curriculum.

By Christine James and Enid Stott

Fashion is a very serious craft and an important one occupying a unique status linking areas of art, textiles and design. It is a continuous connexion flowing between these disciplines with each one feeding each other. The craft does not exist in isolation and it is this very position which makes it so vulnerable within the secondary curriculum of the 1980s.

Factors such as falling rolls and new examination boards must not be allowed to affect the future of the subject, nor must the mass production of cheap, exaggerated or mundane designs be allowed to cloud the issue of its importance. Everyone wants to look their best and one should never underestimate what clothes do for people; everyone has the urge to express themselves to create things and teenagers are no exception to this rule, the foundations are there to build on, the opportunity should not be missed.

Jean Muir calls herself a dressmaker; perhaps she is right, although the term is not glamorous or trendy. Yves Saint Laurent hates fashion because it

is too tyrannical. The term "fashion" is misleading - creative dressing may be a more apt title, for fashion covers a much wider field than clothing.

For any subject to be justified on the secondary school curriculum it must fulfil certain criteria, namely that it must influence the individual's intellectual, social, physical, moral and aesthetic development. Fashion within the school curriculum covers these criteria well. The understanding of the processes, materials and the correct use of practical skills in dress becomes an intellectual process in the realization of a design.

Within the individual, fashion is one of the intellectual expressions of personality. Dress and dressing is a social activity, notwithstanding its historical context; adolescence is a stage when dress within social conventions is explored within the classroom itself, the practical situation is of course a social activity. The acquisition of practical skills along with their associated skills of coordination, dexterity, manipulation, etc., reveal the physical content of fashion, while a knowledge of dress is

well related to the body of its physical development.

For older pupils our exploration of design, fashion, mass production, economy, creativity, quality, will question the morality of fashion design. Aesthetically, fashion develops the individual sense of taste, colour, creativity, design, shape, form, beauty and elegance.

Dress is the central area of concern for this subject. To bring creativity into what could be called dressmaking takes a great deal of time and preparation with the pupils and this creativity cannot be developed until the fifth/sixth-form level, although of course many basic ideas, such as dyeing, printing, machine work, should be introduced to the lower years.

Creativity in dress develops from pure dressmaking - but how far do we insist on perfection in technical proficiency when it could be more advantageous to encourage experiment? Too great a demand could diminish interest in the subject - demand for perfection comes later with examination work.

When pupils design garments for themselves they can finish them properly, add the little details like coloured or patterned linings, surface decoration by the use of dyes, machine or handwork, beading, etc. They then create a truly individual look - a style of their own - for children are very much individuals. Good shapes, fabrics, pattern and colours all working together are the basics of good design.

Creative crafts are very much inter-linked with dress. A basic example being a piece of tie and dye made into a garment. Hand-knitted garments are being used by such top fashion designers as Calvin Klein. Traditional crafts, modern techniques and materials should not be ignored, particularly in view of the larger amounts of leisure time we seem to be gaining.

Our job is to see that fashion is not allowed to be submerged and choked through lack of understanding of its true value as a creative subject and the part it needs to play in the development of the curriculum of the 80s. The future cannot accurately be anticipated, but if craft industries are to flourish the country must have trained disciplines to stand them in good stead when they go out into the world.

M E Stott is head of needlework, Shenley Court School, Birmingham. C M James is head of needlework, Harborne Hill School, Birmingham.

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CDT in a London comprehensive. How important are workshop conversations?

## Watch your language!

Gerry Gregory considers the role of "language across the curriculum" in the development of CDT

Since the publication of the Bullock Report in 1975 the notion of language across the curriculum (LAC) has received considerable attention. Most curriculum areas have undergone some scrutiny in the light of two interrelated questions:

- What does/should language activity contribute to realizing the purposes of the "subject"?
- What does/should the "subject" contribute (as by-product) to pupils' language development?

Compared with, say, science and maths, CDT has, in this respect and in published material, received scant attention. Writing in 1983 one sees this as especially unfortunate: for while, under the old dispensation of handcraft or technical studies language played an important part in the activity of the workshop, under the new dispensation of CDT the role of language has changed and sharply increased and shows every sign of continuing to do so.

### Handicraft

In the era of handicraft the majority of workshop lessons fell into one of two broad categories:

- Teacher exposition/demonstration (with teacher) questions and (pupil) answers to stimulate and reinforce learning followed by practical activity - the "making" that was and remains the heart of the matter, the subject's unique contribution to the curriculum. (Traditional technical drawing lessons were mostly of this sort - with drawing the practical activity.) Practical activity, with teacher intervention as required, often occupied whole lessons - especially in the later stages of projects. (This single category probably accounted for the vast majority of workshop lessons.)
- Teacher exposition (often with the accompanying use of audio-visual aids, textbooks, worksheets etc.) of "theory" (presented often as discrete and divorced from practical work: wood science, timber technology, materials, tools, processes etc) followed by pupil writing - eg notes and written tests.

Faced with this pattern of work, and as LAC became a familiar notion, the workshop tended not to reach for prescription but rather to opt for the more effective, and inherently far more valuable, process of addressing "checklists" of such questions as the following:

### TALK

Is my exposition couched in terms appropriate to the pupils?

What proportion of my questions are the "referendum" (yes/no) "added" (one might answer, often)

single word) and "open" (open-ended) types?

How far do I promote the use of talk as an instrument of learning as well as of teaching: encourage the pupils to talk their way to different kinds of mastery? What exactly is going on, in language terms, in the practical time in the workshop? What is the pattern of my interaction with individuals? What do we talk about? How far do pupils seek help from friends first and from me only as a last resort? How important (and unique in the school week) are those workshop conversations that range beyond the work in hand - and my involvement in them?

What importance do I attach to the "language of the subject", especially the vocabulary - including the special usage of terms in common use beyond the workshop ("proud", "flush")? What individual or departmental or cross-departmental moves can be made to identify and help pupils master an essential core vocabulary (essential, that is, to efficient and accurate reference/discourse as between practitioners)?

How can I help pupils (especially girls, whose early acquisition may disadvantage them in this respect) find their way into this particular discourse? (These are often muddled LAC issues. For example, in some LAC formulations impatient, misguided approaches to the acquisition of specialist terms have been taken as grounds for rejecting the terms themselves. While in this way such words have sometimes acquired a bad name, novelist Joseph Conrad's view that "technical language is an instrument brought into perfection by ages of experience, a flawless thing for its purpose" (a judgment arising from contemplating the language of seamanship) - is a valuable corrective.

### WRITING

What does doing the written work I set contribute to the pupils' capacity to become powerful on paper? Do I do my bit towards helping them learn to sift, select and record what is important in my exposition. In reading materials: charts, video, tapes etc: to make notes for themselves for their own purposes rather than to take notes prepared by me for mine? Do I, rather than delay by insisting at the outset on "final draft" and formal writing, encourage pupils to write first drafts in comfortable words, just as in the graphics transformation they are encouraged first to explore ideas by sketching comfortably (first drafts), and to postpone the production of polished technical drawings? How far does my marking of and response to pupils' writing tend to help their progress as writers, including their development as accurate spellers?

and masters of a punctuation system that is prerequisite if readers are to "take their meaning"? Is there scope in the workshop for promoting free, "expressive", perhaps speculative writing (eg in subject diaries) that might stimulate/consolidate working learning in its cognitive, affective and psychomotor aspects?

### READING

Here, typically, the International has tended to focus on what is known by workshop teachers of pupils' reading capacities (and linked with the extent and value of liaison with colleagues who meet the same pupils elsewhere); on how appropriate are the reading materials (books, worksheets, handouts, safety notices etc) and reading tasks that are offered to pupils; on recovering and making explicit the assumptions and values implicit in the selection of texts. What contribution (often modest) can I make to reading development (by, say, selecting equipment, introducing new texts in written as well as oral form, and encouraging the integration of reading with the practical reception of text)? In summary, what kinds of reading should I encourage, in what context and for what purposes?

### CDT

As hinted above, what is in a school, workshop has undergone the last few years a major change. In the last few years a number of many dedicated individuals and groups, largely unnoticed by the wider educational community, have often tended to ignore the changes as of momentary only, remaining unaware of the demands that CDT at its best affords. It is hardly surprising, given a strong cultural tendency to under-estimate the value of the written word, that the CDT at its best affords a way divorced from the "academic" status, "academic" capacity, and the hope that the publicity given to such disparate developments as "Bedfordshire Bus", "MCA's Capabilities" and "TVET" will, in different ways, help bring into focus an important and neglected curriculum area.

As regards LAC, the quiet revolution has produced considerable variety of language activity employed there, before opportunities that are immediately apparent in an workshop of recent trends in workshop activity. One example of the new pattern of work added by the shift to CDT is as follows:

While it is unrealistic to attempt to account for a nation's industrial success principally in terms of the nature of the educational experience offered to pupils at secondary level, nevertheless a growing concern to be competitive to what has been called the world market place has resulted in much discussion, particularly during recent months, on the extent to which our education system prepares pupils for life and work in a technological and industrial society.

Reactions, as usual have been mixed.

Some consider that such preparation should be undertaken but that it should be reserved for those pupils who are likely to leave at 16, and also most likely to take up occupational roles in industry. Others feel that such preparation should be one of the principal aims of secondary education for all pupils.

These differences reflect the tension which has always existed beneath the surface of education - concerning the study of subjects for their own sake versus their study for some ulterior purpose such as vocational preparation. The debate erupted last year with the controversial proposal of the Manpower Services Commission to introduce pre-vocational training within the secondary public sector.

It was probably the style with which the proposal was presented as much as the content of what was being suggested which so inflamed many of the opinions which the educational press carried, but it did serve to highlight dramatically the whole sensitive area of the relationship between pre-vocational education and modern industrial needs.

The dilemma is not a new one, and the explanation of the apparent dichotomy between liberal education and the world of the academic on the one hand, and vocational training combined with the world of work on the other is a complex socio-historical affair but some of the prejudices which also today are legacies of Plutarch, though, an influence which has pervaded our educational system since its inception.

It seems remarkable that the views still held by some today regarding the status of areas of knowledge mirror the Platonic stratification where "pure" knowledge is found at the highest level and "more" practical arts at the lowest. Similarly his stratification of society proposes that those concerned with non-utilitarian pursuits are to be found at the top while the artisans are afforded lowest esteem in the hierarchical order. The picture will perhaps be familiar to those who reflect on the way that we in Britain value certain knowledge and attribute social status. Consequently education, or perhaps I should say schooling, has always been faced with having to make a choice on where it places its priorities.

Bertrand Russell summed it up: "Should we in education aim at filling the mind with knowledge which has direct practical utility or should we try to give our pupils mental possessions which are good on their own account."

The point of this illustration is to show how well established these traditional prejudices are and that any change of emphasis within education must be accompanied by a change of social attitudes, and radical attitudes are not likely to be affected overnight given the long-standing status-quo which favours intrinsic academic study. There is, however, evidence that these views are being gradually eroded - and indeed not before time, for the arguments on which they are founded can be shown to lack any rational basis - at least as far as contemporary education is concerned.

There is only a very tenuous logic which attempts to support the traditional position. We might proceed more constructively in education if we were not to be so preoccupied with the utility versus intrinsic quality notions as being mutually exclusive. To have possessions of knowledge which has some utilitarian or practical value does not devalue it. Neither is it less creditable to be motivated to study certain subject areas because their attainment is more likely to result in securing employment, than to pursue them solely because of the concern for the pursuit of truth.

In the past it has been the case that pupils rejected some subjects they might actually have been intrinsically motivated to follow but were instead advised to study those academic subjects which had a higher pay-off in securing them university places. Fortunately that has changed in many areas, with subjects such as design and technology being accepted for university matriculation purposes.

The ideal that subjects should be pursued for their own sake has often been a notion that has had little basis in reality. This argument can be developed, but is perhaps better dealt with elsewhere: it is sufficient for us to acknowledge that there are no grounds for the dichotomy which has so distorted the pattern of the educational experience we have offered.

If we focus more finely on the contemporary education/industry debate, a good deal of controversy stems from the tendency to confuse two different perspectives of the issue, namely:

- The early preparation of a certain group of the school population for future occupational roles within industry;
- CDT practice ("the black and brown books"), the Schools Council Modular Technology materials and the preliminary APU material in the field similarly reflect a greatly augmented language "agenda". Many projects are conceived as collaborative, thus implying the dialogues and small-group discussion - exploratory, tentative, "first draft" talk-with-shared focus - regarded as of central importance in the theory of LAC.

Writing, as suggested above, is no longer merely an additional chore for pupils - and sometimes for teachers - whose real commitment is to making; rather it is fully integrated into the design-make-evaluate sequence. From being useful chiefly for marking "face value" and "face-edge", for scribbling your name on your "job", and for copying notes from the chalkboard, the pen (or pencil) has found a new place: among the indispensable tools of the workshop. In the short, CDT revolution (which is, needless to say, more advanced in some places than in others) is bringing practice and theory together, with oral and written language in a new, closer and complex relationship with graphic communication - a far more place.

## Cooperation or conflict?

Paul Griffiths argues that it is time for education and industry to critically examine some of the old prejudices

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EXTRA

While it is unrealistic to attempt to account for a nation's industrial success principally in terms of the nature of the educational experience offered to pupils at secondary level, nevertheless a growing concern to be competitive to what has been called the world market place has resulted in much discussion, particularly during recent months, on the extent to which our education system prepares pupils for life and work in a technological and industrial society.

Reactions, as usual have been mixed.

Some consider that such preparation should be undertaken but that it should be reserved for those pupils who are likely to leave at 16, and also most likely to take up occupational roles in industry. Others feel that such preparation should be one of the principal aims of secondary education for all pupils.

These differences reflect the tension which has always existed beneath the surface of education - concerning the study of subjects for their own sake versus their study for some ulterior purpose such as vocational preparation. The debate erupted last year with the controversial proposal of the Manpower Services Commission to introduce pre-vocational training within the secondary public sector.

It was probably the style with which the proposal was presented as much as the content of what was being suggested which so inflamed many of the opinions which the educational press carried, but it did serve to highlight dramatically the whole sensitive area of the relationship between pre-vocational education and modern industrial needs.

The dilemma is not a new one, and the explanation of the apparent dichotomy between liberal education and the world of the academic on the one hand, and vocational training combined with the world of work on the other is a complex socio-historical affair but some of the prejudices which also today are legacies of Plutarch, though, an influence which has pervaded our educational system since its inception.

It seems remarkable that the views still held by some today regarding the status of areas of knowledge mirror the Platonic stratification where "pure" knowledge is found at the highest level and "more" practical arts at the lowest. Similarly his stratification of society proposes that those concerned with non-utilitarian pursuits are to be found at the top while the artisans are afforded lowest esteem in the hierarchical order. The picture will perhaps be familiar to those who reflect on the way that we in Britain value certain knowledge and attribute social status. Consequently education, or perhaps I should say schooling, has always been faced with having to make a choice on where it places its priorities.

Bertrand Russell summed it up: "Should we in education aim at filling the mind with knowledge which has direct practical utility or should we try to give our pupils mental possessions which are good on their own account."

The point of this illustration is to show how well established these traditional prejudices are and that any change of emphasis within education must be accompanied by a change of social attitudes, and radical attitudes are not likely to be affected overnight given the long-standing status-quo which favours intrinsic academic study. There is, however, evidence that these views are being gradually eroded - and indeed not before time, for the arguments on which they are founded can be shown to lack any rational basis - at least as far as contemporary education is concerned.

There is only a very tenuous logic which attempts to support the traditional position. We might proceed more constructively in education if we were not to be so preoccupied with the utility versus intrinsic quality notions as being mutually exclusive. To have possessions of knowledge which has some utilitarian or practical value does not devalue it. Neither is it less creditable to be motivated to study certain subject areas because their attainment is more likely to result in securing employment, than to pursue them solely because of the concern for the pursuit of truth.

In the past it has been the case that pupils rejected some subjects they might actually have been intrinsically motivated to follow but were instead advised to study those academic subjects which had a higher pay-off in securing them university places. Fortunately that has changed in many areas, with subjects such as design and technology being accepted for university matriculation purposes.

The ideal that subjects should be pursued for their own sake has often been a notion that has had little basis in reality. This argument can be developed, but is perhaps better dealt with elsewhere: it is sufficient for us to acknowledge that there are no grounds for the dichotomy which has so distorted the pattern of the educational experience we have offered.

If we focus more finely on the contemporary education/industry debate, a good deal of controversy stems from the tendency to confuse two different perspectives of the issue, namely:

- The early preparation of a certain group of the school population for future occupational roles within industry;
- CDT practice ("the black and brown books"), the Schools Council Modular Technology materials and the preliminary APU material in the field similarly reflect a greatly augmented language "agenda". Many projects are conceived as collaborative, thus implying the dialogues and small-group discussion - exploratory, tentative, "first draft" talk-with-shared focus - regarded as of central importance in the theory of LAC.

Writing, as suggested above, is no longer merely an additional chore for pupils - and sometimes for teachers - whose real commitment is to making; rather it is fully integrated into the design-make-evaluate sequence. From being useful chiefly for marking "face value" and "face-edge", for scribbling your name on your "job", and for copying notes from the chalkboard, the pen (or pencil) has found a new place: among the indispensable tools of the workshop. In the short, CDT revolution (which is, needless to say, more advanced in some places than in others) is bringing practice and theory together, with oral and written language in a new, closer and complex relationship with graphic communication - a far more place.

● The need to provide all pupils with an understanding of the nature of industry in a modern technological society.

The aims of the two views are essentially different - the former being to predetermine the occupational roles of certain pupils, often those of lower ability, while the latter aims to provide pupils with a wide understanding of an important aspect of our contemporary culture.

The first approach raises what we might call the paradox of pre-vocational training - that the roles for which we might be equipping pupils and the jobs we are preparing them to fill may have only a limited life expectancy - but worse they may not exist at all.

Education has a principal responsibility to do its best to prepare young people for the society in which they will have to live and work as rational adults. It is self-evident that any such education must properly deal with the industrial (in its widest sense) aspects of society and the technological developments which exist alongside it.

The paradox just mentioned ceases to be a problem if we aim to develop in pupils those attitudes and particularly capabilities which are not job specific, but have application in various changing contexts, while additionally providing an understanding of the crucial role industry plays in all aspects of our modern lives.

However the solution is not as simple as welcoming "Industrial Studies" to its slot in the circumstances, while subject specialists pursue their apparently unrelated specialist areas. Pupils need to see how knowledge drawn from most subject areas is used within industry. This means teachers

relinquishing some of what has been called their "subject chauvinism" and liaising with industry to show pupils how knowledge is vital in an industrial as well as academic context.

It is particularly relevant to look at CDT and apply some of the points which have emerged, because CDT perhaps more than any other subjects has in the past been associated with industrial liaison and preparation for working life.

It is important to avoid the danger of it becoming a single source of narrow vocational preparation of the first type defined earlier. If this were to happen then, given the traditional prejudices I have outlined in some detail, the likelihood is that it would cease to attract pupils of all abilities but would cater principally for the less able, and that would effectively put the clock back educationally, 20 years.

It is important to recognize that the *raison d'être* for CDT lies in the value that it affords all boys and girls the opportunity to experience and come to terms with a whole area of human understanding not represented by any other curriculum activity - namely the design and production of 2 and 3D solutions to meet human needs.

Just as geography is studied by all pupils and not just the potential freight forwarding executive, or languages the aspiring travel courier - so too CDT is an essential, indispensable element of a core curriculum. This means that pupils of both sexes and of all abilities should have the opportunity to benefit from its study regardless of their future occupational roles.

Industrially what is important is that pupils come to see how aspects of CDT feature within an industrial context; how the problems the design engineer, technologist, or product designer are trying to solve are in essence the same as those that secondary pupils are wrestling with. They should see how new technology finds a place next to traditional skills, and look at the type

Continued on back page of EXTRA

Nelson

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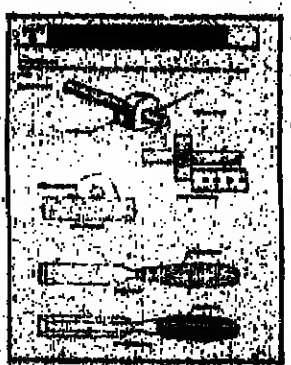
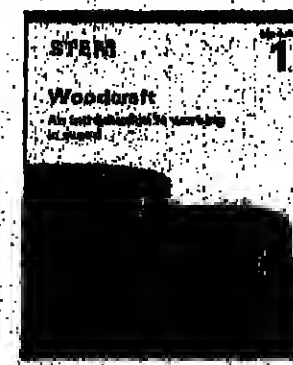
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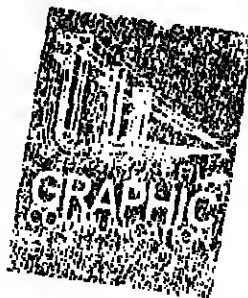


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## Off to a good start - or how

A thematic approach in design work and its application towards providing a method of integrating the areas of Craft, Design and Technology as a basis for teaching Third Year pupils in Secondary Education (age ranges 12-14).

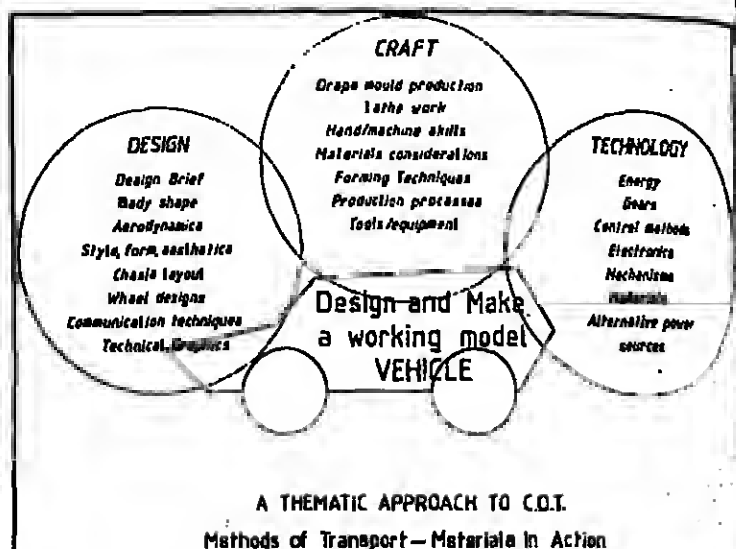
The pungent smell of machine oil mingled with disinfectant pervades the workshop air. Lathe stands gleaming, a little worse for wear but devoid of swarf and bits of metal. Floors and benches swept clean, tool cupboards, racks full, vacant places replenished with sharpened dividers and scribers. Files, try squares, callipers, all colour-coded with fresh paint.

Another school year and the beginnings of a new term: the noise of third years lining-up in the corridor cracks the atmosphere, eager, expectant, demanding bodies push and jostle - abilities, emotions, sexes, all mixed up in groups of 21.

Finding a project, topic, problem, need, situation, design brief, whatever we call it that involves a total CDT concept and experience is difficult. No, you may say, it's easy - just set a design problem such as design and make a small hammer, box, egg-holder, toothbrush rack and so on. Good old standbys, never fails, grabs their interest, teaches skills, functional end product - "Something to show Mum and Dad". But ask yourself is it CDT?

I would suggest that producing a design problem that is stimulating, demanding and relevant to that age group and encourages the development of each pupil's potential, both in cognitive and manipulative skills, and also encompasses the whole essence of what CDT is about, is a challenge for many new and even established teachers.

Probably one of the main reasons for this is what I call "The Great Technological Syndrome".



### The T in CDT

Recent developments in CDT have centred around the growing awareness of technological approaches to design work. The DES publication, *Technology in Schools*, provides some indication of this along with the perennial reports and working papers of the NCST.

But how many departments in schools are structured, geared up, or pneumatically controlled for this modulated, electrically stimulated, micro-organic computerized experience? Perhaps we are in danger of polarizing the subject and alienating the various interested bodies, so that in fact at one end of the spectrum we have craft design-based curriculum and at the other design technology. A more prestigious emphasis placed on D and T as highlighted in *Technology in Schools*, where headmasters that were questioned saw new technology

courses being more desirable academically, socially and financially than the traditional workshop activities.

There appears to be some dissonance between certain groups representing what might be described "mainstream" design education and certain elements of the technology lobby. In some respects what I had intended to describe has been preempted by an article in *The TES* "CDT Entry" of October 23 1981 by Paul Griffiths, a lecturer at Avery Hill College.

In this article Mr Griffiths referred to a "type of partnership" which has resulted in a "tunnel-vision" mentality in which the individuals concerned were unable to see the total spectrum of creative activity, and were blindered by their own particular specialisms and prejudices.

Certainly, I recognize that polarities exist and it seems that they have been vocalized with increasing determina-

**MAIN THEME**  
TRANSPORT - METHODS OF TRAVEL  
Secondary Theme - Materials in Action

**STAGE 1 (CDT INPUT Visual Stimulus for generating ideas)**  
(a) Display area: cardboard replicas of articulated lorry with theme titles as logos. Posters, magazine cuttings, manufacturers' handouts and brochures. Visual stimulus on past/present modes of transport, e.g. traction engines to

space shuttles, Concorde to Leonardo da Vinci's drawings of helicopter. Methods of power: Steam engines, electricity, wind, nuclear, solar and so on.

(b) 30 - Overlay on materials and different methods of forming, e.g. plastics, metals, wood (types of forming methods: drape moulding, blow moulding, appropriate shapes of manufactured objects, e.g. old vacuum cleaner, record player

dask, lamp fittings, parts of vehicles, bits and pieces of engines, electrical components, household objects.

(c) This display is set up to provide a stimulating and interesting area whereby pupils can assimilate and relate to the various information media. Commencing ideas, needs INPUT both visually and in a tactile way in order to generate the seed of an idea in a child's imagination.

**STAGE 2 (DESIGN) - DESIGN BRIEF**  
A Logical Approach to Designing

(a) Introductory talk/lecture to 2-3 groups of mixed ability boys and girls, 21 maximum in each group. Slides on methods and modes of transport - cars, lorries, boats, hovercraft, swamp buggies. Means of motivation - energy/power requirements.

(b) Problem - Design and make a model vehicle that can move over either land or water. It should be powered by electricity that is a minimum of 1.5 volts and does not exceed 6

volts. Alternative power sources may be considered in consultation with staff.

(c) Design Process - recapitulation on first and second year Design Approaches, see handout on Design sheet.

(d) A more sophisticated approach is introduced, overheads plus handout on the Design Process and a simple analysis of the brief is part of the talk.

(e) Individual group work/Brainstorming Land Water

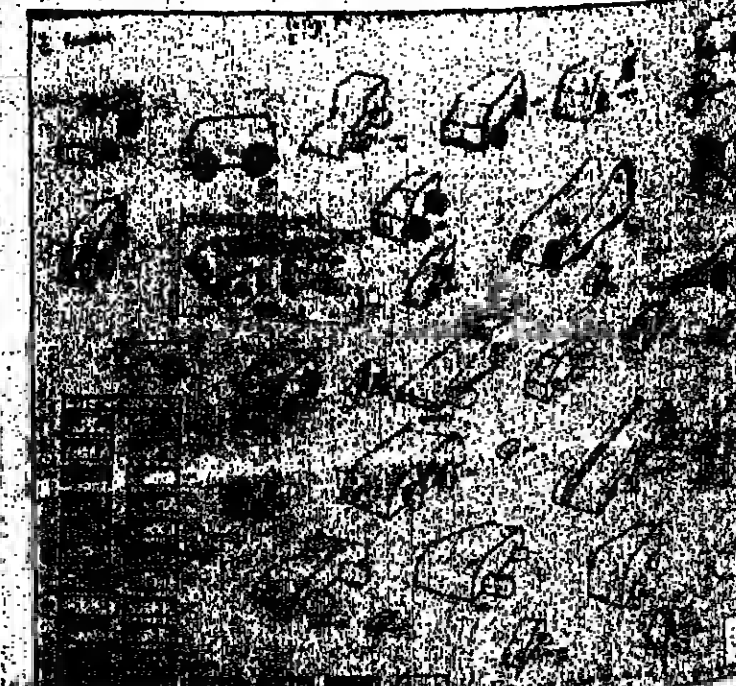
(f) Home Works - Understand what you consider to be the main words of the design brief and write one or two sentences about each one. Also, research, find and draw any pictures about the type of vehicle you may want to design - see Photo No. 1 of one third year boy's initial design sheets.

**STAGE 3 (DESIGN) - Methods of Communicating your ideas**

(a) Groups are brought together in a technical drawing room and given a talk/lecture by the member of staff in charge of Graphics. He explains and demonstrates the various ways of illustrating and communicating ideas. These include models and mock-ups in various materials, free hand sketches, cardboard cut outs, T.D., paintings and illustrations. He goes on to talk about style, form, shape and basic aesthetics.

(b) Pupils are returned to individual groups and allowed a period of exploring different methods of communicating ideas and the handling of medium associated with these methods.

(c) Home Works - Design your vehicle shape and present your ideas in any way you have been shown in lessons but you must include at least one page of



EXTRA

## to put the "T" into CDT

By Paul Burton

too to some quarters. This is to be regretted, as it is contrary to the whole direction and spirit of the recent developments in CDT. The formation of design departments and faculties has produced cooperative attitudes between the various interested parties associated with design activities, such as art, some sciences, and maths departments.

In a recent address to the National Association for Design Education, the chairman, Phil Mason, said that in Bedfordshire, where he teaches, almost all of the curriculum development eggs have been firmly placed in the technology basket.

I am very sympathetic with his thinking when he goes on to say that his experiences in this area have shown that the enthusiasm and inventiveness brought to this aspect of the design continuum are no less than in any other facet. Certainly, as he put it, many able pupils, in schools where there is no common core, have remained in design activity through technology who would previously have been lost in the option lottery.

But, how do schools who are design craft-orientated begin to introduce technology, and what kind?

Over four years ago I found myself in a similar situation. What follows is an outline of a stage-by-stage approach and a teaching strategy that is employed by members of my department and has been developed over four years. "It is a thematic approach based upon 'Transport' and has been devised to integrate the subject areas of CDT to a total experience for third-year pupils, providing a 'vehicle' (unintentional pun) in which to involve technology to a reasonable level.

My intention is not to provide just a Reader's Digest type guide, but to offer an approach that can be analysed, evaluated and possibly adopted and refined by other schools.

### THIRD YEAR

#### THE DESIGN PROCESS and DESIGN CONSIDERATIONS

Definitions: "A goal directed, problem solving activity" - LB Archer.  
"The conscious effort to impose meaningful order" - V Papanek.

Design covers almost every aspect of our lives, from Christmas cards to cars. It is essential that you realize from a very early stage that designers do not simply dream up ideas; their designs are arrived at as a result of a great deal of work. It is essential that you realize that a designer can not work without data and this is derived from a basic knowledge of materials, processes and techniques. To build up your own data you should make a point throughout the course of collecting any information which may be useful, this information should be stored in either your DESIGN FOLDER or TECHNOLOGY FOLDER.

Most design work is carried out in a systematic and logical manner with each phase of the work dependent on previous decisions/assumptions and designer has made. The designer must also look at a variety of solutions to the problem before finalising his design.

Below is a logical approach for the designer to work through:  
**PROBLEM or DESIGN BRIEF**  
**ANALYSIS** (Research: Evaluation of problem)  
**IDEAS** (Creative Thinking)  
**SELECTION and REJECTION** (Selection Making)  
**DEVELOPMENT and SYNTHESIS** (Mock-up Models)  
**REALISATION** (Production)  
**ASSESSMENT** (Does it satisfy the brief?)

When designing, the designer must take a great number of factors into consideration. The following considerations are not always applicable, but most have relevance to the majority of design problems. This is not an exhaustive list; please add other points as you discover them.  
Proportion, Size, Market, Function, Form, Shape, Ergonomics, Appearance, Aesthetics, Finish, Quality, Quantity, Storage, Adaptability, Style, Production, Manufacture, Materials, Reliability, Safety, Environment, Cost.

Techniques useful to the designer: Sketching - Perspective - Isometric Orthographic - Use of snap views - section views - exploded views. Colouring through Crayons - Felt pens - Paint. You must keep all work relating to a design solution, as even rough sketches form an important part of the design.

**STAGE 4 (CRAFT) Producing the vehicle body**

(a) Material 80 x 80 x 250mm. Pine or Hornbeam block (old fence post) is distributed to each class. They then refine their chosen design to a more appropriate within the size of material (a constraint).

(b) Demonstration on planing, use of surfboards, marking out procedure. Also a brief explanation is given about desired shapes, height ratios, problems of air pockets in moulding and encountering difficult grain structures.

(c) A rough outline of their ideas is drawn on their wooden block and cut out either by the member of staff using a bandsaw or by the pupils using a jig saw, coping saw or tenon saw.

(d) The shape is developed by using surfboards and other hand tools and is finely finished off with glass paper.

(e) Home Works - Using annotated diagrams write up a Design Log on what you did in lessons and find out information on the tools and equipment you used.

**STAGES (CRAFT, TECHNOLOGY) Forming the vehicle body and Research Techniques**

After the moulded shape has been formed it is cut out by pupils using a jig saw, coping saw, etc.

(a) Talk/lecture using slides and models given on methods of converting energy into mechanical motion, e.g. motivation. Handouts: "Basic Mechanical Movement" such as gears, pulleys, levers, etc.

(b) Talk/lecture on developing and producing wheels, chassis, super structures, slides plus models to be shown as examples.

(c) Home Works - Research on wheels, super structures and mechanical movement for your proposed vehicle, e.g. propellers for boats, fans for hovercraft. See Photograph

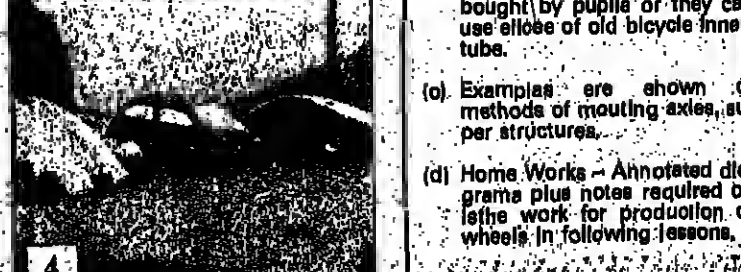
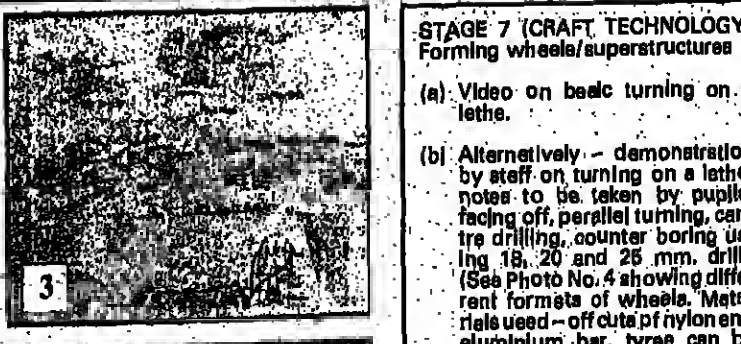
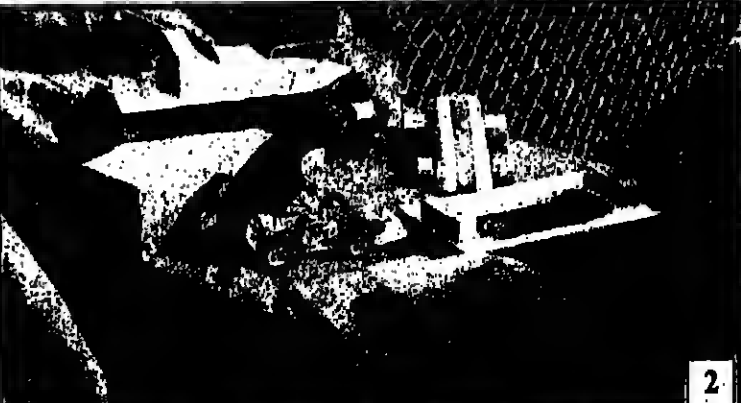
**STAGE 5 (CRAFT) Producing the mould and forming the Acrylic body shape**

(a) The finished wooden former is used to mark out the profile for the yoke and then mounted on a base board (see Photograph No. 2, showing example of finished mould). Instructions on the sequence of screwing, clearance and pilot holes countersinking, clearance for Acrylic sheet is given by individual members of staff.

(b) Forming shape in Acrylic, calculations on the size of materials and methods of production is given in a demonstration.

(c) The pupils individually having heated their material in a special oven then proceed to produce their own moulded forms.

(d) Home Works - Design Log, handouts on processes used, annotated diagrams required plus written information.

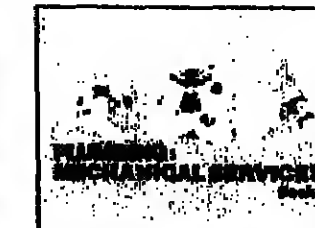


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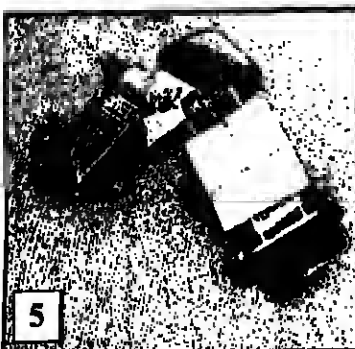
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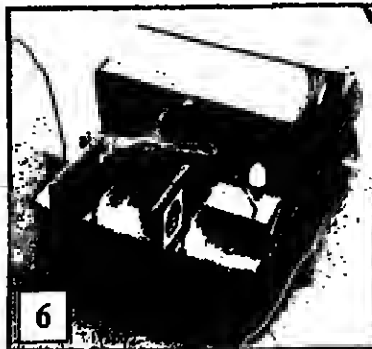
STAGE 8 (TECHNOLOGY) Chassis Design - Power/Mechanical Movement, Control Techniques, Circuit Diagrams  
(a) Chassis design - use of cardboard mockups, development of ideas  
(b) Illustration and examples of possible means of motivation and methods of powering (Photo, No. 6)



STAGE 9 (C.D.T.) Evaluation - Testing, "Does it Work?"  
(a) Grand Prix 82 Steff versus Pupils or Who can beat Noddy? (See Photo, No. 8). Also see advertisement on Race details.

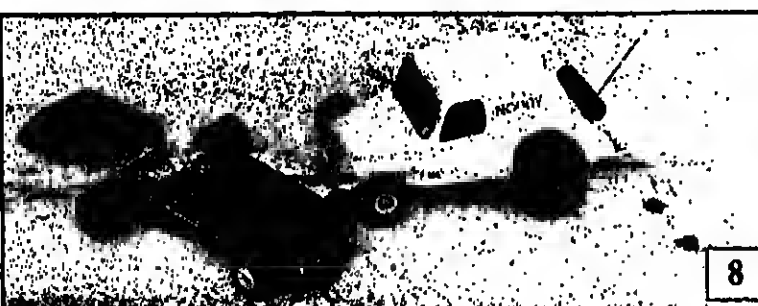
(b) A race is held in the Girls' Side Hall which provides not only entertainment but a practical demonstration on what has been achieved by pupils, fun, frolics, frustration. One is surprised at the number of pit

(c) Introduction to simple circuitry and use of circuit diagram, basic electronic theory.  
(d) By this stage a more individualistic approach is occurring whereby each pupil is beginning to formulate their own way of answering his/her own requirements to the design problem. Subtle refinements to the basic model become apparent, such as adding accessories, painting and spraying the bodies of their vehicle, trailer, and so on.



stops some cars have to make even at this reduced scale. Technology in action! But not always, minor adjustments of gears, pulleys even elastic bands end of course the inevitable flat batteries!

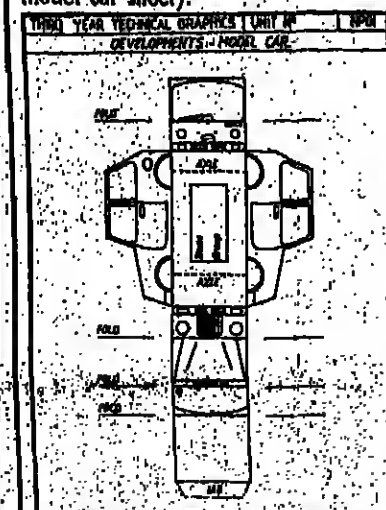
(c) Prizes for originality, body design for boats, cars and any other vehicles design logs and briefs. However, the record still tends to a member of staff 6.7 seconds for a 10 metre course with a winning entry Noddy.



## Integration of subject areas in a department

The spin-offs from this approach have been extremely valuable. It has strengthened team-work and integration of subjects within the department. For example, one of my colleagues, in charge of technical graphics, has developed and implemented a third-year course based on workshop activities. Pupils begin to see graphics work as both exciting and relevant to what they are producing.

Underlying this approach is the result that pupils are mastering complex draughting and geometric skills, and laying a good foundation for future work in the fourth and fifth years (see model car sheet).



Another consequence of this approach is that drawing interpretation is a complex activity in itself which some pupils find extremely difficult, but who can now see it related to their own models. Standards of presentation of graphics work has increased both in quantity and quality in the classroom and for homework.

In woodwork, the problem of designing a model vehicle based on the principles of land yachts, has provided both a stimulating and exciting dimension to a traditional craft area. Technology involved here consists of work

on control methods for sails, steering, wind power and gearing systems. Extra-curricular clubs in CDT in the department have flourished, providing another outlet for ideas and a chance for pupils to progress of their own speed and level. The main advantage is that these clubs supplement valuable practical lessons which have been used for talks and demonstrations.

## Conclusion

Criticism that could be raised on this thematic approach is that it is not CDT, but a glorified "hobby" based upon design methods. My defence would be in the form of the diagram which illustrates the concepts, skills and technology involved in this project (see diagram of "model vehicle"). I personally believe that any approach which has its honest intention of importing the aims and objectives concerned in the CDT subject areas, and translating these to pupils, is valid.

## Resources

I suppose, like a great many departments in this country, I have the best set of "scroungers" (meant in the oldest possible way). In a time of recession opportunities abound, many small uncompetitive firms are closing down and these are worth approaching. Pieces of acrylic signs, bits of card, paper, metal, wood, nylon rod can be salvaged, and it is well worth foraging out old electrical equipment and machinery.

Another source of material which can supplement a department's capital is the firms who actually pay for the removal of waste material. They are usually only too glad for a school to do the job for nothing. The school minibus finds another use rather than just transporting sports teams.

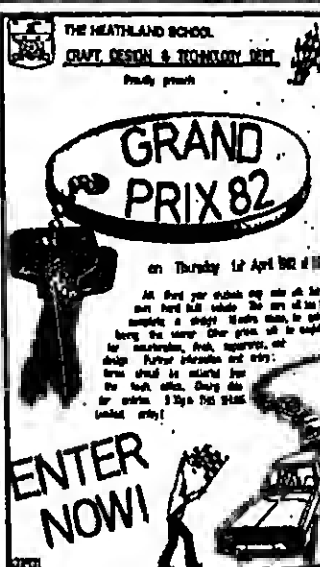
Perhaps we are lucky in being situated in a comparatively industrial area, but anywhere and anyone is a potential source.

Finally, many leading companies associated with the transport industry can provide a wealth of information, ranging from pamphlets, brochures, slides, photographs and technical information, and they are usually only

rent, such as adding accessories, painting and spraying the bodies of their vehicle, trailer, and so on.

(e) See Photos, Nos. 6 and 7.

(f) Home Works - Design Logs, circuit diagrams, use of simple electric motors and other methods of motivation.



you willing to assist, e.g. BP, Castrol, Lucas, BL, Ford, Chrysler, Vauxhall, Rolls Royce, British Airways, London Transport and Volvo.

Su - Le Mons, Brenda Hatch and Silverstone - watch out! At The Heathlands we're off to a good start.

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This article from *Studies in Design Education Craft and Technology* a magazine for teachers featuring good practice in Craft and Technology. Obtainable from Mrs B Wiggins, 30 Wenger Crescent, Twickenham, Stoke-on-Trent, Staffs. Subscriptions at £1 per year. Paul Burton is head of C.D.T. at Heathland School, Houghton, Middx.

EXTRA

## More than half way there

John Catton and Peter Toft outline one positive strategy for encouraging girls to succeed in CDT

Despite current trends towards equality of opportunity in schools, CDT remains an almost exclusively male preserve. To redress this imbalance, the Girls into Science and Technology (GIST) project was established at Manchester Polytechnic. Working closely with CDT teachers, the project team attempted to counter the influences of sex stereotyping on the optimum choices of girls.

It included visits to CDT lessons by craftwomen and women technologists, technology clubs for girls only, observation of lessons and the production of a tape/slide pack, entitled *Why CDT?*. About 2,000 pupils who entered 10 co-educational comprehensive schools in Greater Manchester in September 1980 were involved. One of the schools the Abraham Moss High School, an integral part of the North Manchester College. Is a large, bustling education complex embracing a college of further education, district library, leisure centre, club, residential wing and extensive community facilities, and is used by more than 10,000 people each week. CDT is an important part of its curriculum, is taught on progressive lines, and has access to the expertise and facilities of the college's post-16 art and design, engineering and micro-technology sections.

When the school's pupils involved in the project reached the end of their second year, they were given the usual school crafts "mint-option" and invited to select any two areas from the four being offered by the CDT and home economics departments for more concentrated study in their third year. Previously, only one or two girls had taken CDT in the fourth and fifth years. The GIST team felt it was unwise to offer such a choice at an age when the development of their femininity or masculinity is so important to young people, and they are under considerable pressure to select on the basis of their sex. But at the time, however, the Manchester comprehensive schools were undergoing reorganisation and the school staff did not wish to make things worse by making such a curriculum development at that time.

In the event, about 20 girls opted to continue with CDT and they were deliberately grouped together for third-year lessons. This was a significant improvement on previous years and the staff were keen to maintain the girls' interest in the subject. To do so we decided to take the girls out of school to meet women who were clearly successful in CDT. The 3D design department in the Faculty of Art and Design at Manchester Polytechnic, used by many women students, provided just the right blend of activity and excitement to interest the girls.

To prepare the ground at the polytechnic we discussed the reasons for positive discrimination and the department accepted the need to involve girls in such visits without the often inhibiting presence of the boys. They appreciated too that unless such courses are specifically brought to the attention of girls, few will consider the possibilities of a technically-based career.

At the college John Doyle, lecturer in product design, emphasized the importance of design awareness and referred to the girls' school CDT work. Commenting on a major project of a third-year woman student, the girls said such things as "I could never do that in my life". Which drew the response that they could if they were shown the techniques involved.

Later on they visited wood/metal/

ceramics studios and were soon absorbed in the activity. There was a high proportion of women students in the studio to whom the girls chatted easily. They were particularly interested in work in titanium and much amused by "funny face" mirrors and moving faces, incorporating simple mechanisms, in wood.

The dramatic highlight for most, however, was the experience of seeing

a ball of molten glass being skillfully blown into shape. However we should have discussed its purpose more fully with the interior design staff which would have made it of more interest to the girls. We concluded that any future trip would need to be as relevant, alive and visually stimulating as the workshop session had been.

This was followed by a discussion, led by four women students which

revealed questions both naïve and shrewd. The answers were clear and unequivocal and this contact with successful women left a strong impression with the girls.

About six months after the visit one of the girls was interviewed by a member of the GIST team in a sample for CDT in the school who had opted for CDT in the fourth year. One reason the girl gave for continuing was that she had been on a visit to the Art and Design Faculty at Manchester Polytechnic and had been inspired to aim for a career in design.

John Catton was the GIST schools liaison officer for CDT and is now deputy head at Buxton Girls' School. Peter Toft is a senior teacher at the North Manchester College.



CLASS IIB 9.30AM



CLASS IIB 9.50AM

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EXTRA

# Pass along the bus, please

Susan Thomas reports on Bedfordshire's technology buses

Strange isn't it? While Manchester calculates the severity of its sewer collapses in "double decker buses" - four DDBs is a really big one - Bedfordshire uses the same unit for technical education. DDBs, SDBs (single DDBs) and BUTs (back-up trailer units). To date, it has two DDBs, three SDBs and five new BUTs.

"By the autumn of 1984," says Ron Denny, Bedford's CDT Inspector "every secondary school in the county will be offering technology." And it won't be string and ceiling wax stuff either - for the dynamic Mr Denny is a stickler for style.

Thanks to the Bedfordshire Technology Unit's spectacular marriage with industry, the schools have crisp new tools and equipment, safe CDT areas and on elite corps of inspired, advisory teachers who urge everyone - staff, heads, pupils and managers - on to even greater things.

As a result, nearly 3,000 pupils will sit technology exams next June, local industry is falling over itself to recruit school-leavers with O level technology, the universities are recognizing the subject as an alternative to physics for engineering and every one of the A level students has been offered sponsorship through university.

"School-leavers with the level of skill and knowledge that your courses are providing will be of great value to industry" wrote Austin Rover's chief training officer. "We are very keen on

seeing (your) 18-year-old A level leavers with a view to sponsorship." And to show their appreciation they promptly provided two shiny new Austin Ambassador cars to tow the trailers.

The secret of Bedford's success is simple - mobility, flexibility and a radical approach to the problem of sharing too few resources, both material and intellectual, between too many needy people.

They have solved it by pooling and centralizing costly but little used equipment, using buses to bring technology to the schools for a limited period each week, persuading industry to donate money or materials and by an intensive training and retraining programme for teachers.

The technology buses, sleekly white and professional in the county's livery, are a familiar sight on the country roads. At present, there are three in service - one double and one single decker A level bus and double decker middle school bus. Equipped with gas, pressurized air and water and electrical trunking, they simply drive on to the playground plug in to the school's electricity supply and the mobile classroom/workshops are ready for action.

Soon two more buses, part of the Government's TVI - Technical Vocational Initiative - will be on the road bringing technology and business skills to more Bedfordshire pupils.

The A level buses have specialist roles. One carries pneumatics and



Upstairs on the middle school double decker hydraulics equipment. The other cars for work in mechanics. Both are equipped for electronics. Between them they carry 26 BBC computers. They have the facilities to enable students to work on their A level computer-controlled hydraulic, pneumatic or electronic projects, robotic arms for fume cupboards, devices to project tennis balls and cardboard clocks (accurate to within four seconds a week. In good conditions - an absence of matches no doubt).

The younger children (9 to 14-year-olds) enjoy the same facilities but less so. They, too, have power, air and water on tap, so to speak, access to computers, mini lathes, workbenches and vacuum forming machines. John Barber, driver and teacher of the middle school DDB, explained the system to me.

He teaches a five day, 11 school week. And the class teacher, timetabled onto the bus with him, shares the teaching and updates his own skills and knowledge at the same time. The middle school bus reaches a quarter of the country's schools - the A level buses are available to every sixth-form whether in school or a separate college.



Where technology is part of the core curriculum the majority of girls are enthusiastic.

"When they have made up a design they produce a plastic casing with the vacuum forming machine. Favourite projects are simple alarms, hazard warning lights and transistor testers. What the 13 and 14-year-olds were doing two years ago - the 13 and 14-year-olds are now."

Materials for these projects rarely exceed £1.50. But the equipping of these buses must run into thousands. This is where industrial sponsorship comes in. "Open the craftsman-made cupboard, aside out the fitting shelves and every inch of space is used for tools: components, drawing instruments, all beautifully displayed and all bearing the manufacturer's logo. Rotring, Stanley, Fischer-Technik. Every

time the TV cameras explore the new teaching environment, and they do, the supporting firms get free publicity. "As it should be," says Chris Weaving, driver of the A level SDB and creator of the county's superb hydraulic logic and circulating teaching boards. "In education we're always begging from industry - it's nice to be able to give something back. When Ventr decided to market the teaching boards it gave me a tremendous sense of satisfaction - first it meant that they would be generally available for

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In an article entitled "The Design and Fall of Britain" (TES, April 29) Rick Rogers presented a critical appraisal of the state of design in contemporary general education. Having read Rogers' account the casual reader may well have formed the opinion that design education is in a state of crisis: that it has been emphasizing the wrong content, that it is undervalued in a curriculum which is still academically orientated and that it is severely understaffed.

The bad press which design education has received recently has stemmed almost totally from the new well documented seminar held at 10 Downing Street in January 1982. This resulted in a statement by the Prime Minister which Rogers describes as "a devastating indictment of design education in schools".

The burden of Mrs Thatcher's summing up was that: "Design is too often taught in secondary schools as an art subject and rarely as it should be, as a practical, problem-solving discipline". This, she maintained, was the reason for its low status, dismal recognition by employers and higher education, and the limited scope of the subject in schools.

It is acknowledged that design education as an educational activity is still in a formative period of development and that over a relatively short length of time teachers of practical disciplines have had to rethink their philosophy and practice in order to make their subjects more relevant to modern needs. But it would be a mistake to lose sight of the achievements of this period of change.

It is significant that people from a variety of backgrounds should want to debate and discuss design and practical learning in the school curriculum. This is hardly a situation one could have conceived even a few years ago. What was a concern of educationists, and practical educationists alone, has now attracted an audience far wider than those concerned with practical learning in schools. Leading figures in public life, academics and industrialists in particular, have begun to perceive the notion that the attitudes and values developed in the design area of the curriculum have importance for life in society and at work. After all, which other curriculum areas have merited a Downing Street seminar?

There appear to be three main aspects to arguments on the value of design education which have formed the trend towards a greater level of recognition. First, there has been a line of thinking that has centred upon an economic case which has been brought into sharp focus by the recession. Many now think that Britain's lack of industrial competitiveness could be more than the result of economic policies and the world market, and might at least in part, be attributed to attitudes and values fostered in the British educational system. This has led to a growing positive thinking towards productive effort, but has encouraged an ethos hostile to careers in the industrial sector. The sentiments

"Come up here one day," said Ron Denny, indicating the neat, bright upper-deck of the middle school DDB, "and there were three teachers, a head, a couple of managers and a dozen kids, all with their heads down, on crouched in what they were doing, they didn't even notice my arrival, they loved it" he said with delight.

"They just love it." It is enthusiasm which kept the technology team working a 70-hour week for the first two years, a passion which causes heads who are classicists or historians to write to and badger for school based technology. Inset, enthusiasm which keeps the students in school for hours after school working on their projects.

"You asked me if the buses would eventually work themselves out of a job," said Denny "they never will because they will remain at the end of modern technology, constantly updating education - to keep pace with the country's needs - there'll always be a place for them."

If you are quick off the mark you may be able to catch up with the Bedford Technology Unit Road Show (what else?) at Wembley this month at the end of England Show or through on their way to take a try, the universities, the Department of Trade and Industry.

Design and Technology is not only a stimulating collection of projects and ideas in school technology - it also develops a basic understanding of this expanding subject. Although the book will be found particularly useful by 14-16 year old pupils, it can also be used as an introduction to the subject for sixth form students.

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EXTRA

# The essential relationship

Philip Mason on the place and potential of design education

of this line of thinking have found most vocal expression in the "education for capability" movement.

A second part of the trend has viewed human learning more broadly than the "two cultures" perception of the arts and science curriculum. Arguments now point to a third area, as yet under-developed in the academic world, but which forms an important element of man's humanity. This view centres around activity which is expressed in such concepts as doing, constructing, creating, planning, organizing and realizing. These may be encompassed within the generic term design. The DES research project at the Royal College of Art in the mid-1970s "Design in General Education", did much to clarify how this third area complements the arts and sciences. The Design Council's Keith-Lucas Report set out guidelines for how this might be implemented in schools.

The third trend has supported the view that design education can become an important social and cultural dimension within the curriculum. As we live in a world in which humanity is increasingly dominated by buildings, systems and products planned by specialists, it is an important aspect of children's development for them to be aware of how their physical surroundings are shaped and how they might respond to their environment.

But what has taken place has been far more than a debate. Design activity is becoming a vital force within the curriculum of many schools. It is not so long since the norm was for the majority of able students to abandon practical learning in the second or third year of the secondary school when options were chosen. Increasingly, there is evidence that schools are incorporating design-based subjects into their common core for all students throughout the statutory years. The lead given by HMI in their 11-16 Working Papers (1978), has been seen by many as a stimulus to a broader curricular approach.

A further area of development has been the increasing recognition of the acceptability of A levels based in design for entrance to degree courses in higher education. Previously, lack of regard by universities and polytechnics checked growth at sixth-form level.

The work of the Design Council in particular, resulted in the recommendation of the Engineering Professors' Conference of 1982 that certain design-based A levels should be

accepted for the general entrance requirement. This has been an important step forward. Although the numbers currently taking design-based A levels is small, the trend is towards growth. (There was an increase in entry of 32 per cent for Oxford "Design" and 9 per cent for London "Design and Technology" in 1983). But acceptability as a third A level is only a start and one looks to the future when students with a design-based qualification will be given positive discrimination for relevant degree courses such as engineering, technology or architecture.

One of the most interesting and powerful developments in the area of design education in recent years has been in the field of technology. Many of these courses have adopted a problem-centred approach in which pupils' experience is shaped through tackling projects which require the application of technological concepts and processes to real life situations. In many instances however, technology has grown as an exclusive area of study unrelated to other activities within the design curriculum. It has been suggested that this "bistate growth" was necessary initially for technology to become established, but it is timely that it should now become more closely coordinated with other elements of design departments.

This highlights a particular difficulty in the design education movement. Because design covers a wide range of subject boundaries and is essentially interdisciplinary it has lacked a degree of direction and cohesion; this Rogers rightly pointed out in his article. The institutional framework of the school curriculum stems from subject divisions of the past, thus the inspectorate, local authority advisers, teacher training, examination panels, etc tend to have responsibility for only part of the design sector. This causes fragmentation.

Because few local authorities have adopted a coordinated design policy for their schools, the trend towards a faculty system has meant that teachers themselves have had to take the responsibility for developing curriculum policy. Also, the design area of the curriculum has lacked the central development projects enjoyed by the humanities and sciences. Development of design educational policy has, as a result, been patchy in geographical terms.

But on the positive side this has resulted in interesting individual departmental styles giving different models rather than the homogenization which often results from prepackaged courses. In many schools a common approach in the middle years becomes rigidly separated as students specialize for examination courses in specific aspects of design. It is clearly appropriate that some pupils develop expertise in depth, but for others it is for more relevant for them to have access to a range of media and experiences. In spite of the lead given by the Oxford A

chairmanship of the Design Council Director Keith Grant. No other area of the curriculum can have such a plethora of associations as design subjects.

However, such fragmentation has meant that the design area lacks the powerful voice of other disciplines with one major subject association. It is hoped that current discussions will one day result in the formation of a national body which can articulate design needs among the highest councils.

The lack of coordination across the design curriculum in schools resulting from an historical legacy has produced inconsistencies and it has been this failure to create a holistic vision of the role of design in education which has been brought into focus in the recent discussion. At the Downing Street seminar Mrs Thatcher felt that schools gave too much weight to design as "pure art or taste" and not sufficient emphasis to design as a "practical,

level syllabus in design must examine syllabuses lack breadth. This reinforces fragmentation in design departments and much of the co-ordinative work in the middle years becomes dissipated.

It is significant that the 16-plus proposals in design were framed from either CDT or art or home economics viewpoints. However, developments taking place in the Midland Regional and Southern CSE Boards and with Cambridge, point to progress in this area.

But one of the most positive signs for future inter-relationships across the design spectrum at institutional level has been the initiation of joint meetings of CADA (Confederation of Art and Design Associations) and CODATA (Confederation of Design and Technology Associations) under the

problem-solving discipline preparing young people for work within the constraints of user needs and the market. The growth in importance of CDT and technology in particular caused one to question the Minister's perception of the nature of design education currently practised in schools.

But surely the point has been missed. Design is neither art nor problem-solving, nor technology in isolation, but an inter-relationship of a complex of factors inextricably woven. Until this factor is fully internalized both by teachers and those who comment from outside, the potential of design education will be less than fully realized.

Philip Mason is chairman of the National Association for Design Education.



Louise Webb, Manshead Upper School, an entrant to the Rolls-Royce Schools Design Prize with her reading kit for dyslexic children. She features in "... to be an engineer", the second Rolls-Royce programme for schools.

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EXTRA



Technological and industrial studies is an important component of the Home Science for all students at Avary Hill.

## Cooperation or conflict?

continued from page 39

of technology which has relevance in a modern industry. By involving the professionals from industry with pupils' work in school then the whole area of CDT can become enriched. This approach is of course not only valid for CDT but every other subject. This way pupils of all abilities may become interested in commercial design and production and may decide to pursue careers in engineering, technology or the design area, which in the long term will erode further the prejudices which have for so long denigrated these professions.

The answer is not to select only lower ability pupils for industrial liaison programmes with the hope that these approaches will engender motivation, leaving the more able to pursue the traditional subjects required for matriculation purposes. Such an approach will only perpetuate prejudices which exist against able pupils pursuing careers in industry.

The difficulty is, we have a set of social attitudes which reflect the Platonic model outlined earlier and until there is a wholesale change of these attitudes towards the acceptance of industry as an essential aspect of our society and the corresponding necessity to educate all pupils for life and work within it, then the attainment of the educational ideals I have described remains difficult. There is, however, evidence that we are starting to take these issues seriously. The existence of a range of initiatives designed to promote greater understanding of the relationship which might exist between education and industry. These include the Schools Council Industry Project, funding by the Department of Industry of various education projects demonstrates industry's willingness to be involved, their magazine *View* published quarterly provides a source of ideas and encouragement for contacts be-

tween the two areas. School Technology Forum currently has a working party looking at the area of transferable skills. Teacher secondments to industry are providing an opportunity of first hand experience for many teachers, and movements such as Education for Capability provide the necessary philosophical support.

These initiatives are being accompanied by courses of initial teacher education providing students with industrial experience. It is important to emphasize that this experience is supported by and seen as an integral part of a college-based course dealing with the preparation of students for the placement and evaluation following it. Also important is a staff development policy which ensures that lecturing staff are themselves acquainted with the important issues and where possible have first hand experience of liaison and working with industry.

In a way what is perhaps most heartening is that a new generation of sixth-formers are recognizing that change in social attitudes towards industrial status is long overdue. Jeanie Roberts - one of the winners of the Observer Whitbread National Essay Awards - writing on the question of whether education has done enough to prepare pupils for work or make them aware of the role of industry, says:

"The traditional schools' curriculum continues to recognize a first in education from Oxford as the ultimate achievement. In Germany by contrast it is considered socially desirable for a gifted child to go on to get the highest level of technical qualification. It is these people who have created their industrial success story. It is in my view absolutely critical that the educational establishment adopt a radical attitude geared towards industrial and commercial activity."

Paul Griffiths is head of design and technology and coordinator of technological and industrial studies at Avary Hill College, London, where a new 8 Ed Home Science degree which includes Technology and Industrial Studies has just started.

## Solutions

Introducing Craft, Design and Technology, By A Breckon and D Preat. Thames/Hutchinson 0 09 1495415

"Wherever there are people, there are problems needing solutions." For me, this is the quote of the week and it comes not from the educational psychologist or from the social worker's notebook. It comes from a book which sets out to solve the problem of teaching design in context of Craft, Design and Technology which has largely replaced the traditional subjects of wood and metalwork in the curriculum.

Starting with the way the natural world has evolved solutions to the problem of bird eating habits and seed dispersal, there is a look at the methods used by Leonardo da Vinci before the stages to designing are fully covered.

Drawing techniques, presentation and considerations of line, shape and form, texture and colour are followed by sections on balance and proportion, pattern, movement and style. Throughout the text and illustrations complement each other with a great

deal of humour in the drawings while photographs supplement these in a way which must help the student be aware of things in the environment which will help the young designer.

The second half of the book deals with the technology necessary for the realization of design and as with previous sections, the topics are well set out. Structures, electronics, mechanisms and the use of analogy are sympathetically covered. Inevitably the subject areas are dealt with at a basic level but the treatment is not superficial. Students who learn the facts as set out here will be able to put more specialized books to rest. For more development as the need arises, this book gives enough sound information to get the student started.

When the authors come to deal with tool and material handling skills, I found the way in which different materials were treated in the same way helpful. It is right in the middle of a situation that a common approach is developed even though specialized jobs will be needed at times. Again, basic technology is clearly explained in text and diagram. At the end of the book, 24 design briefs are suggested forming a useful programme of work for several years in the secondary school setting.

Ted Heasman

## PRIMARY EDUCATION

continued

**BROMLEY LONDON BOROUGH OF**  
**ANLEY PRIMARY**  
Anley Road, Anley, London SE20 8AX  
Head Teacher, Group 5.  
Applications are invited from suitably qualified and experienced teachers for the above post. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Anley Primary School, Anley Road, Anley, London SE20 8AX. Closing date 21st October 1983. 110010

**CAMBRIDGESHIRE**  
**ROTHAMPTON COUNTY**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Rothampton County School, Rothampton, Cambs. Closing date 21st October 1983. 110010

**HUMBERSIDE**  
**EDUCATION COMMITTEE**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Humberside Education Committee, Humberside. Closing date 21st October 1983. 110010

**NORTHAMPTONSHIRE**  
**ROTHAMPTON COUNTY**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Rothampton County School, Rothampton, Cambs. Closing date 21st October 1983. 110010

**Wiltshire**  
**PRIMARY EDUCATION**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Wiltshire Education Committee, Wiltshire. Closing date 21st October 1983. 110010

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Group 4, N.O.R. 180

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## EAST SUSSEX

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**NORTHAMPTONSHIRE**  
**NEWTON ROAD INFANT**  
Newton Road, Northampton, NN10 0RH  
HEAD TEACHER GROUP 4

**LANCASHIRE**  
**COUNTY COUNCIL**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Lancashire County Council, Lancashire. Closing date 21st October 1983. 110010

**BALSHAW LANE COUNTY**  
Buxton, Cheshire  
(360 on Roll)  
1st May 1984 or earlier  
1st Teacher - GROUP 5

**ROTHAMPTON COUNTY**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Rothampton County School, Rothampton, Cambs. Closing date 21st October 1983. 110010

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Newton Road, Northampton, NN10 0RH  
HEAD TEACHER GROUP 4

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**COUNTY COUNCIL**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Lancashire County Council, Lancashire. Closing date 21st October 1983. 110010

**BALSHAW LANE COUNTY**  
Buxton, Cheshire  
(360 on Roll)  
1st May 1984 or earlier  
1st Teacher - GROUP 5

**ROTHAMPTON COUNTY**  
Applications are invited for the post of Head Teacher for the above school. The successful candidate will be required to teach in the school in September 1984. Details of the post and application form will be available from the School Office, Rothampton County School, Rothampton, Cambs. Closing date 21st October 1983. 110010

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## DERBYSHIRE

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**DERBYSHIRE**  
**DEAUFORT JUNIOR**  
Deaumont Road, Derby  
DEPUTY HEADTEACHER GROUP 4

**LANCASHIRE**  
**COUNTY COUNCIL**  
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Buxton, Cheshire  
(360 on Roll)  
1st May 1984 or earlier  
1st Teacher - GROUP 5

**ROTHAMPTON COUNTY**  
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## MIDDLE SCHOOL

## Scals 1 Posts

## NORTH TYNSIDE

## METROPOLITAN BOROUGH

## OF NORTH TYNSIDE

## EDUCATION COMMITTEE

## SCHOOL

## Headteacher: Mr. R. W. Watts

## Required as soon as possible

## to teach the subject through-

## out the school

## Application forms are avail-

## able on receipt of a s.a.e.

## from the Director of Educa-

## tion, Education Office, 1995

## Cliff, North Shields, NE59

## 1TW, and should be sent to

## the Headteacher on receipt

## of a s.a.e. (155951) 125952

## WEST SUSSEX

## NOTRE DAME R.C. MIDDLE

## SCHOOL

## Headteacher: Mr. R. W. Watts

## Required as soon as possible

## to teach the subject through-

## out the school

## Application forms are avail-

## able on receipt of a s.a.e.

## from the Director of Educa-

## tion, Education Office, 1995

## Cliff, North Shields, NE59

## 1TW, and should be sent to

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## Physical Education

## Scals 1 Posts

## SUFFOLK

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## Scals 1 Posts

## Please refer to CRAFT DE-

## SIGN AND TECHNOLOGY for

## posts previously carried under

## this heading. (155951) 125952

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## LINCOLNSHIRE

## SIR JOHN BLEED GIRL'S

## SCHOOL

## Headteacher: Mr. R. W. Watts

## Required as soon as possible

## to teach the subject through-

## out the school

## Application forms are avail-

## able on receipt of a s.a.e.

## from the Director of Educa-

## tion, Education Office, 1995

## Cliff, North Shields, NE59

## 1TW, and should be sent to

## the Headteacher on receipt

## of a s.a.e. (155951) 125952

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## BROOKWOOD

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## Physical Education

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Invited  
attestur 1







## COLLEGES OF HIGHER EDUCATION

**SOUTHAMPTON**  
LA SAINTE UNION COLLEGE OF HIGHER EDUCATION  
The Avenue, Southampton SO9 5JH  
Tel: 107031 28761

The following appointment is offered from January 1984:  
LECTURER II to contribute to B. Ed. Honours and In-Service Courses.

The successful candidate will have good academic qualifications in computing and ideally will be teacher qualified.

Further details obtainable from the Principal, Secretary. Applications should be received by 17th October 1983. 340080

## SOUTHAMPTON

LA SAINTE UNION COLLEGE OF HIGHER EDUCATION  
The Avenue, Southampton SO9 5JH  
Tel: 107031 28761

The following appointment is offered from January 1984:  
LECTURER II to contribute to B. Ed. Honours and In-Service Courses.

The successful candidate will have good academic qualifications in computing and ideally will be teacher qualified.

Further details obtainable from the Principal, Secretary. Applications should be received by 17th October 1983. 340080

## WORCESTER

**WORCESTER COLLEGE OF HIGHER EDUCATION**  
SCHOOL TEACHER FELLOWSHIP  
Applications are invited from qualified teachers in Primary and Secondary Schools with interest in:

Education for the Non Academic Adolescent, 16-18 years

Initial Teacher Education (Primary and/or Secondary School)

For a one-term School Teacher Fellowship tenure at the College in the academic year 1984-85 or 1985-86. The Fellowships are treated as part-time appointments for administrative purposes.

Individual programmes with the Fellow whose status will be that of members of academic staff.

Application form and further particulars may be obtained from the Principal, Worcester College of Higher Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036

## REDDRIDGE

London Borough of Redbridge Education Committee  
REDDRIDGE INSTITUTE OF ADULT EDUCATION  
LECTURER (Full-time)  
Applications are invited for the following post that is currently vacant.

The duties of the post will be the teaching of basic literacy and numeracy to the mentally handicapped adults.

Candidates should preferably be qualified teachers. Experience of working with the mentally handicapped would be an advantage.

Salary for the post will be based on the current Further Education Scale for Lecturers. Currently this amounts to £22,649 - £29,735 plus £245 (London Allowance).

Further particulars and application forms are available from the Redbridge Institute of Adult Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036

Application form and further particulars may be obtained from the Principal, Worcester College of Higher Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036

## LONDON NW1

REDDRIDGE INSTITUTE OF ADULT EDUCATION  
LECTURER (Full-time)  
Applications are invited for the following post that is currently vacant.

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Further particulars and application forms are available from the Redbridge Institute of Adult Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036

Application form and further particulars may be obtained from the Principal, Worcester College of Higher Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036

## TUTOR

Applications are invited from qualified teachers for the post of Tutor in the Further Education Department.

The duties of the post will be the teaching of basic literacy and numeracy to the mentally handicapped adults.

Candidates should preferably be qualified teachers. Experience of working with the mentally handicapped would be an advantage.

Salary for the post will be based on the current Further Education Scale for Lecturers. Currently this amounts to £22,649 - £29,735 plus £245 (London Allowance).

Further particulars and application forms are available from the Redbridge Institute of Adult Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036

Application form and further particulars may be obtained from the Principal, Worcester College of Higher Education, 100, Grosvenor Road, Worcester, W.C.1 3JH. Tel: 0432 340036



## 2 Part Time Youth Workers

For day time provision for the young unemployed - a project based at Sutton Youth Centre on three afternoons per week to commence as soon as possible.

- 1) Qualified Youth Worker for five sessions per week to be responsible for supervision, evaluation, research and administration of the project and liaison with other agencies. £18.63 per session.
- 2) A Youth Worker for three afternoon sessions per week to assist with the project. £11.47-£13.73 per session according to age and qualifications.

Application forms and further details from: Mrs H. Robertson, Education Department, The Grove, Cershill, Surrey. Tel: 01-861 6749.

Closing date 21st October, 1983.

## SUTTON

## City of Manchester Education Committee

## Youth and Community Education Worker

JNC4 (Range 3-7) £23,183 - £10,248 pa - two posts.

The above salary can be enhanced for additional training and qualifications. £1,580 for an Honorary Degree and £345 for a General Degree.

Post 1 - Required for the North Area for Community Education. Applicants must be suitably qualified and experienced.

To assist the District Co-ordinator of District 2 in the provision of community education and help link activities for that District with existing facilities and provision in the neighbourhood.

Post 2 - Required in District 8 - Miles Platting Community Education Centre, Holland Street, Miles Platting, Manchester 10.

To assist the Co-ordinator in the integration of the component parts of the work of the Centre but will be particularly involved in outreach work with young people in the neighbourhood of the Centre.

Re-employment of previous applicants should indicate whether they wish to be reconsidered.

Application forms from the Area Principal, Room A9, North Manchester Area of Community Education, Abraham Moss Centre, Crescent Road, Manchester M9 6UF. Tel: 01-795 5995.

Closing date 19th October, 1983.

## Posts overseas

## Japan

Teacher of English, College of General Education  
Kyushu University, Fukuoka, Kyushu

Duties: to teach English to undergraduates at this prestigious university. The emphasis will be on English conversation and composition at elementary or intermediate level.

Qualifications: candidates must be under 60 years, British born and qualified, and hold a PhD or MA in English, Linguistics or Applied Linguistics. Experience and genuine interest in TEFL is essential.

Salary: Yen 230,000 - Yen 468,000 per month (21 - yen 380).

Benefits: subsidised accommodation, generous annual salary bonus, medical scheme, fares, baggage allowance and starting subsidy.

Contract: 2 year local contract, renewable commencing 1 April 1984.

Reference: BS 50 T.

## Thailand

Assistant Director of Studies  
British Council Centre, Bangkok

Duties: the Assistant Director of Studies will be responsible for the day to day management of the school and resources; registration and the allocation of students to classes; some in-service training; assistance with testing; classification of materials and 8-12 hours teaching per week.

Qualifications: candidates should have a degree, postgraduate TEFL qualification and 5 years relevant experience.

Salary: £24,805-£1,402 per month (gross) plus £28,800-£10,800 according to rate of exchange.

## Venezuela

Director  
The British Council, Maracaibo

Duties: the Director will participate in the formulation of CTEO policy and will be responsible for professional, financial, promotional and personnel management; five hours teaching per week; responsibility for examinations, curriculum, textbooks and equipment.

Qualifications: a degree, RSA or PGCE TEFL, MA Applied Linguistics (desirable), minimum of 5 years TEFL experience including administrative and financial duties is essential (preferably in a British Council CTEO); experience of personnel management is desirable, Spanish highly desirable.

Salary: Sterling and Bolivian elements, tax free, in the following ranges: sterling £5,598-£7,871; Bolivian Bs59,946-£1,848. The sterling element is payable in British.

Benefits: accommodation allowance, settling-in allowance, airfare, baggage allowance, medical cover, annual home leave.

Contract: a two year contract with the British Council in Maracaibo, renewable by mutual consent, starting as soon as possible.

Reference: BS D 129 T. PREVIOUS APPLICANTS NEED NOT RE-APPLY.

For further details and an application form, please write, quoting the post reference number, to: Overseas Educational Appointments Department, The British Council, 11, Tottenham Court Road, London W1P 0DT.

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## LEICESTERSHIRE

LINWOOD CENTRE  
Meadow Farm, Leicester

COMMUNITY TUTOR  
Required for the Linwood Centre, which is a part of the Aylestone Community Education Project.

The Tutor will take charge of the centre, which is a part-time (one-fifth) community centre, in the middle of a residential area.

You will need to have the ability to work alone and to be a team player. You will be responsible for the day to day running of the centre.

For further details, please contact Mrs M. Downes, 01-533 6857 or write to Mr. P. R. Jones, Community Education Service, Springs Drive Centre, 111, SHD, Road, Leicester LE4 1JH.

Application forms and further details from: Mrs H. Robertson, Education Department, The Grove, Cershill, Surrey. Tel: 01-861 6749.

Closing date 21st October, 1983.

## WARWICKSHIRE

SOUTHAMPTON YOUTH CENTRE  
Southam, Leamington Spa

YOUTH TUTOR - Salary: JNC Range 22,048 - £7,170

Required January 1984 or sooner if possible. The Youth Tutor will be responsible for the Youth Centre and to undertake a part-time (one-fifth) community centre, in the middle of a residential area.

You will need to have the ability to work alone and to be a team player. You will be responsible for the day to day running of the centre.

For further details, please contact Mrs M. Downes, 01-533 6857 or write to Mr. P. R. Jones, Community Education Service, Springs Drive Centre, 111, SHD, Road, Leicester LE4 1JH.

Application forms and further details from: Mrs H. Robertson, Education Department, The Grove, Cershill, Surrey. Tel: 01-861 6749.

Closing date 21st October, 1983.

new appointment and will in the period of two years. Applicants must be of Christian faith. The Association has an open membership and offers a variety of youth club and social activities. It is supported by a team of voluntary leaders. Good liaison exists with the local authority and other local youth organisations. Salary: £4,000.00. Donors: Secretary, V.M.C.A. 111, Tottenham Court Road, London W1P 0DT. Tel: 01-861 6749.

## Overseas Appointments

ATHENS TO ZIMBABWE  
Hundreds of teachers working in Africa and New Guinea. Long-term (TEFL) with long-term contracts. See also up to date information. 150000

CHRISTIAN TEACHERS  
Needed for Secondary Schools in Africa and New Guinea. Long-term (TEFL) with long-term contracts. See also up to date information. 150000

Volunteer Movement, Shantou, Lane 1, 110881. Tel: 01-861 6749.

## University of Petroleum and Minerals Dhahran - Saudi Arabia Mathematics

The Department of Mathematical Sciences is seeking qualified and dedicated teachers for its pre-college program starting 1st September 1984. Applicants must have at least an M.Sc degree in Mathematics with teaching experience at the junior college level. Duties will involve teaching pre-calculus and freshman calculus courses.

The University offers a two-year renewable contracts, competitive tax-free salaries plus a local transportation allowance in cash, free housing, yearly repatriation air-tickets for the employee and his family to and from Dhahran and attractive educational grants for legally authorized dependant children of school age.

Interested applicants should send their curriculum vitae and letters of recommendation to: Chairman, Mathematical Sciences, c/o Dean of Faculty and Personnel Affairs, University of Petroleum and Minerals, PO Box 144, Dhahran International Airport, Dhahran, Saudi Arabia.

Application forms and further details from: The Director of Education, Dhahran, Saudi Arabia. Tel: 01-795 5995.

Closing date 19th October, 1983.

For further details and an application form, please write, quoting the post reference number, to: Overseas Educational Appointments Department, The British Council, 11, Tottenham Court Road, London W1P 0DT.

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## DURHAM COUNTY COUNCIL BEAMISH HALL ADULT RESIDENTIAL COLLEGE

## Post of PRINCIPAL (Group 1)

Applications are invited from persons with suitable qualifications and experience for the post of Principal at Beamish Hall Adult Residential College.

Candidates intending to apply should have a graduate or equivalent qualification and successful relevant experience in mainstream adult education. An ability to promote the College throughout the region will also be necessary.

The salary for the post will be at the maximum point of the range for Group 1 Principals as laid down in the Durham Further Education Report (£14,802 w.e.f. 1st April, 1983). The post is residential and accommodation is provided at the College rent free.

Further details and application forms returnable by 21st October, 1983 can be obtained from the Director of Education, County Hall, Durham, on receipt of a stamped addressed foolscap envelope.

For further details and an application form, please write, quoting the post reference number, to: Overseas Educational Appointments Department, The British Council, 11, Tottenham Court Road, London W1P 0DT.

For further details and an application form, please write, quoting the post reference number, to: Overseas Educational Appointments Department, The British Council, 11, Tottenham Court Road, London W1P 0DT.

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## BRADFORD

EDUCATION ADVISOR  
SERVICE FOR ADULTS  
requires a full-time DUTY ADVISOR to work with a team of workers and volunteers, providing advice and counselling, and out educational opportunities for adults.

Applicants should have a background in adult and/or community education or community development with experience of advice work in formal or informal settings.

Fixed-term appointment until March 1984. AP4 equivalent. £10,101 p.a.

Further details/application forms from Vivienne Bell, Director, Co-ordinator, B.A.G.A. 4th Floor, Bradford Central Library, 111, Market Street, Bradford, West Yorkshire, BD1 1JH. Tel: 0547 533333.

For further details and an application form, please write, quoting the post reference number, to: Overseas Educational Appointments Department, The British Council, 11, Tottenham Court Road, London W1P 0DT.

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For further details and an application form, please write







Education  
Psychologists

NORTHAMPTONSHIRE

EDUCATION  
DEPARTMENT  
PSYCHOLOGIST

Kettering Area  
Salary: £9,400 p.a.  
£10,487 - £14,253

Applications are invited from suitably qualified persons who will take effect from 1st January 1984.

Applicants should have an honours degree in Psychology for its educational use and should have a minimum of two years' postgraduate experience in the field of educational psychology or a related area.

The post holder will be responsible for the provision of psychological services to schools in the Kettering area.

Further details and applications forms, returnable to the County Education Officer, Mr. J. H. Smith, Northampton Education Department, 100 Victoria Road, Northampton NN1 1JH.

It is anticipated that interviews will be held to discuss the post on 10th November 1983.

Examiners

MANCHESTER

UNIVERSITIES OF  
MANCHESTER, LIVERPOOL,  
LEEDS, SHEFFIELD AND  
SHEFFIELD HALLAM

JOINT MATRICULATION  
BOARD  
EXAMINERS FOR THE  
O.C.E.

Teachers will be appointed to examine candidates in the following subjects: English, Mathematics, Science, History, Geography, Modern Languages, Music, Art, Physical Education, and Social Studies.

For further information and application forms, please contact the Secretary to the Joint Matriculation Board, c/o the Universities of Manchester, Liverpool, Leeds, Sheffield and Sheffield Hallam, 100 Oxford Road, Manchester M13 9PL.

Applications should be made by 1st November 1983.

The post holder will be responsible for the examination of candidates in the above subjects.

Further details and applications forms, returnable to the County Education Officer, Mr. J. H. Smith, Northampton Education Department, 100 Victoria Road, Northampton NN1 1JH.

It is anticipated that interviews will be held to discuss the post on 10th November 1983.

THE ASSOCIATED  
EXAMINING BOARD

The Board invites applications for the following posts for the 1984 examination session:

**CHIEF EXAMINER FOR ORIGINALLY QUALIFIED LEVEL**

A visiting examiner for ORIGINALLY QUALIFIED LEVEL.

Applicants for Post No. 1 should have a degree or equivalent qualification in a relevant subject and a minimum of four years' recent relevant teaching experience.

Applicants for Post No. 2 should have a degree or equivalent qualification in a relevant subject and a minimum of four years' recent relevant teaching experience.

Further information and application forms may be obtained from the Secretary to the Associated Examining Board, 100 Victoria Road, Northampton NN1 1JH.

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Lancashire  
County Council

An Equal Opportunities employer  
(Re-advertisement)

**EDUCATIONAL PSYCHOLOGISTS (Four Posts)**  
Salary Range: £9,400 p.a. to £14,253 p.a.  
(equivalent to the Burnham Qualified Teacher Scale for Scale 3 Point 4 to the Head Teacher Group 7 Scale Point 4)  
£8,454 - £14,253 p.a.

Applications are invited for appointment to the above posts based in Preston, Blackpool, Nelson and Blackburn.

Applicants should possess an Honours Degree in Psychology, teaching experience and postgraduate training in educational psychology. Previous experience in a Schools Psychological Service would be an advantage.

Successful applicants will become members of a team responsible for Senior Educational Psychologists. The posts offer opportunities for work with pre-school children and with Primary, Secondary and Special Schools and Units.

Commencing salary will be determined according to age and experience.

Application forms and further details obtainable from the Chief Education Officer, Education Department, County Hall, Preston PR1 8RJ, to whom completed forms should be returned quoting Ref: A932/1/PJ.

Closing date: 21st October, 1983.

Suffolk County Council

Education Department

Sturbury Upper School - Post U337  
Westbourne High School, Ipswich - Post U237  
Orwell High School, Felixstowe - Post U243  
Mildenhall Upper School - Post U402

SCHOOL LIBRARIANS

Librarians Scale: £4,659 - £7,005 per annum  
Minimum starting salary £6,284  
for Chartered Librarian.

A full-time qualified Librarian is required to organise and provide an efficient comprehensive library service to the pupils and staff of the above Suffolk schools.

Application forms and further details may be obtained from the Western Area Education Officer, Shirebury St Edmunds, Suffolk. (Please enclose a stamped addressed envelope).

Closing date: 21st October, 1983.

DAILY RATE  
SUPPLY TEACHERS

required immediately

Applications are invited from qualified and experienced teachers who may be available for Daily Rate Supply Work to cover for sickness or other emergencies in Primary and Secondary Schools. Salary at 1/180th per day of the annual full-time salary (Scale 1).

These posts are not suitable for probationers.

London Allowance: £887.

Application forms (see please) available from the Director of Education to whom completed forms should be returned as soon as possible.

Director of Education, Education Offices, Broadway, Stratford, London E15 4BH.

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Closing date: 21st October, 1983.

BIRMINGHAM EDUCATION DEPARTMENT  
MULTICULTURAL SUPPORT SERVICE

Due to the expansion of this unit which provides a number of services to which teachers are invited from suitably qualified and experienced teachers.

**MULTICULTURAL DEVELOPMENT UNIT**  
Scale 3 Teachers (MDU/301)

10 posts are available in this unit whose main function is to foster the development of whole school multicultural policies in both primary and secondary schools in the city. Applications are invited from suitably qualified and experienced teachers in the various subject areas (History, Science and Humanities) who will develop strategies to combat racism and achieve equality of opportunity for all pupils.

Applicants should have a minimum of five years' experience in teaching and a commitment to multicultural/racial teaching strategies would be particularly welcomed.

**Deputy Leader - Scale 4 (MDU/302)**  
A suitably qualified and experienced teacher is sought to assist the leader of the unit in the development and implementation of the unit's policies and objectives.

**COMMUNITY LANGUAGES UNIT**  
Teacher of Bengali - Scale 3 (CLU/101)

A teacher of Bengali is required to join a team of 8 Community Languages teachers to teach on a part-time basis in a number of the city's schools as an integral part of the Modern Languages Curriculum.

Experience of teaching Bengali, knowledge of the Bengali dialect and awareness of modern language teaching techniques would be desirable.

**SCHOOLS IN-SERVICE UNIT**  
1 Scale 3 Post (SISU/101)

A teacher for a suitably qualified and experienced teacher to join an in-service team of 10 teachers who will develop and deliver in-service training for the following subjects: English, Science, Mathematics, History, Geography, Modern Languages, Music, Art, Physical Education, and Social Studies.

Applicants should have a minimum of five years' experience in teaching and a commitment to in-service training would be particularly welcomed.

**ENGLISH LANGUAGE/ESL UNIT**  
Language Development Teachers - Scale 3 (LDT/431)

2 posts available for suitably qualified and experienced teachers to act as language development teachers in secondary schools. Each teacher will have responsibility for the development of language development in their school and will be responsible for the development of language development in their school.

Applicants should have a minimum of five years' experience in teaching and a commitment to language development would be particularly welcomed.

**Home School Liaison/ESL teachers Scale 3 (HSL/700)**  
2 posts available in the two Centre for Home School Liaison/ESL teachers. Applicants should have a minimum of five years' experience in teaching and a commitment to home school liaison would be particularly welcomed.

**ESL Teachers with responsibility for pupils with learning difficulties (ESL/333)**  
2 posts available for experienced teachers of ESL who will provide additional support for pupils with learning difficulties who have learning difficulties.

**English Language/ESL teachers Scale 1/2 (ELT/711, ELT/222)**  
22 posts available at Scale 1/2 (depending on experience) for teachers of English Language/ESL and ESL to work in primary and secondary schools in the city.

**ESL teachers in Nursery Schools Scale 1/2 (NSC/1/2)**  
10 teachers required to work in Nursery Schools to develop English as a second language. Applicants should have a minimum of five years' experience in teaching and a commitment to English as a second language would be particularly welcomed.

**ESL teachers in Special Schools**  
Team Leader - Scale 4 (SP/4)

A suitably qualified and experienced teacher is sought to head a team of nine teachers working in Special Schools. Experience of teaching English as a second language in special schools is essential.

**Teacher/Advisor Scale 3/4 (SP/4)**  
For suitably qualified and experienced teacher with a good knowledge of English as a second language to work in the Special Schools to develop appropriate procedures for teaching pupils with learning difficulties